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## THE INCIDENCE OF TUBERCULOSIS AMONG POLISHERS AND GRINDERS IN AN AX FACTORY.<sup>1</sup>

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### Object and Scope of the Present Study.

It has long been recognized that the trade of the grinder is one which involves a grave hazard to life and health in the form of industrial tuberculosis, and the tuberculosis death rates for Solingen, Germany, and for Sheffield, England, have for years been cited in the literature of the subject to illustrate the extent of the danger involved in this occupation.

In America no exact study of the tuberculosis death rate among grinders and polishers appears to have been conducted. For a conclusion as to the hazards of grinding, as practiced in this country, we must rely on data in regard to the ratio of tuberculosis deaths to total deaths (without reference to the population exposed). Ratio statistics of this type have been published by the Census Bureau for the registration area, by F. L. Hoffman for the industrial experience of the Prudential Life Insurance Co., and by L. I. Dublin for the industrial experience of the Metropolitan Life Insurance Co. They are interesting and significant; but all such computations of ratios are open to the objection that a high ratio of tuberculosis deaths to total deaths may be due to a low incidence of other causes of death, rather than to a high rate of tuberculosis. Actual death rates per 1,000 persons exposed, analyzed by age distribution, are the only data of a wholly satisfactory kind for the elucidation of this problem.

The present paper presents the results of an intensive study dealing with the mortality from tuberculosis in a large factory in the State of Connecticut devoted to the manufacture of axes and other edge tools. The study was undertaken at the suggestion of Prof. C.-E. A. Winslow, of the Yale School of Medicine. The industrial processes involved, with the actual condition of the atmosphere in the grinding shops, have been presented in a preceding paper by Winslow and Greenburg.<sup>2</sup>

<sup>1</sup> Presented in partial fulfillment of the requirements for the degree of Doctor of Public Health at Yale University.

<sup>2</sup> Winslow, C.-E. A., and Greenburg, Leonard, "A Study of the Dust Hazard in the Wet and Dry Grinding Shops of an Ax Factory:" Public Health Reports, vol. 35, No. 41, Oct. 8, 1920, pp. 2393-2401, Reprint, No. 616.

**Source and Character of Original Statistical Data.**

The village in which the factory under investigation is located is included in three towns, which may be called *A*, *B*, and *C*. The employees of the company have, with few exceptions, been resident in one or other of these towns during the past 20 years. These three towns may therefore be considered as the "mill district," inhabited by the "mill population" and those persons directly or indirectly affected by the industry.

The town of *H*, the nearest point of which is about 2 miles distant from the factory, has supplied on an average about 3 workmen from 1900 to 1918. During the past year, however, about 50 workmen have been coming from this town to work in the ax factory. As this influx has been so recent, the population of *H* remains practically unaffected by the industry. For this reason the town has *not* been included in the "mill district." Conditions in town *H* fairly approximate the normal when compared with those of other localities.

The estimated population for each of these four towns for the years 1900 to 1919 was courteously furnished by Mr. J. P. Balfe, registrar of vital statistics of the State department of health. Mr. Balfe also supplied all the data for the State of Connecticut presented in Table VII, including population by sex and deaths from tuberculosis (pulmonary and other forms) by sex and age.

For the four towns of *A*, *B*, *C*, and *H* a transcript was obtained of all the original death returns in the offices of the town clerks for a period of 20 years. The total number of deaths from all causes in the "mill district" (towns *A*, *B*, and *C*) was 1,738, and that for the town of *H* was 748. All of these death certificates were first classified by cause, those giving as cause of death pulmonary and other forms of tuberculosis being subjected to intensive analysis. The term "pulmonary tuberculosis" has been used to cover all fibroid conditions of the lungs resulting from the inhalation of particles of iron and sandstone, with the tuberculous infection which generally, sooner or later, becomes superimposed on the former condition. In the records for the past 20 years the two conditions are inseparable, as one notes under heading "Cause of death" on the original death certificates, that a great variety of terms are used, e. g., tuberculosis, pulmonary tuberculosis, chronic fibroid tuberculosis, grinders' tuberculosis, phthisis, fibroid phthisis, consumption, grinder's consumption, tuberculosis and grinders' consumption, pneumoconiosis, tuberculosis and pneumoconiosis, etc. Therefore, any attempt to separate pulmonary tuberculosis from pneumoconiosis, as recorded, would result in inaccuracy.

Every case of tuberculosis included in the list for each town was a resident of that town at the time of death, all nonresidents having been eliminated. Every recorded death from tuberculosis for the

past 20 years in the "mill district" has been carefully investigated as to personal history and occupation. The physician to the factory has been a resident for over 19 years and possesses an intimate knowledge of the cases among the workmen. The foreman of the grinding shops and the foreman of the polishing shops have been in their present positions for over 20 years. The cases of tuberculosis for the 20-year period were checked over several times, and if there was any doubt as to whether a particular individual worked in the factory he was eliminated from the factory list. In the great majority of cases, "grinder" or "polisher" was recorded under the heading "occupation" on the original death certificate. By putting together all the information obtained, it was possible to divide all the deaths from tuberculosis which have occurred in towns *A*, *B*, and *C*, during the 20-year period, into three different groups, viz, "grinders and polishers," "others in mill" (including all other employees of the ax factory), and "citizens, not in mill" (including all other residents of the district).

The number of employees in the ax factory (exclusive of the office force) classified as "grinders and polishers" and "others in mill" were obtained for each year from 1900 to 1919, inclusive, from the office records of the factory; and I desire here to express my appreciation of the facilities so generously offered by the officials of the factory in the prosecution of my work. By subtracting the total number of employees in the factory (exclusive of the office force) from the combined total population of towns *A*, *B*, and *C*, I obtained the "population figure for citizens of the mill district not in mill."

#### Crude Death Rate from Tuberculosis in the Four Towns Studied.

The crude death rate from all causes in the four towns studied showed nothing of special significance, the average crude death rate from all causes per 1,000 for the period 1900-1919 being 15.0 for town *A*, 17.8 for town *B*, 15.9 for town *C*, and 15.4 for town *H*.

A study of tuberculosis deaths in the different towns proved much more significant. The principal data for the mill district (towns *A*, *B*, and *C* combined) are presented in Table I, and those for the town of *H* are similarly grouped for comparison in Table II. The first striking fact that appears on examination of Table I is the large preponderance of male deaths from tuberculosis, as compared with female deaths, in the mill district (161 males as compared with 53 females).

TABLE I.—Deaths from tuberculosis in the towns A, B, and C.

Year.	Deaths from tuberculosis.				Age distribution.										Em- ployed in mill.	Not em- ployed in mill.
	Num- ber.	Male.	Fe- male.	Pul- monary tuber- culosis.	Tuber- culosis, other forms.	0-5	6-10	11-15	16-20	21-30	31-40	41-50	51-60	61-70	70+	
1900.	14	11	3	12	2				2		3	7	1			7
1901.	3	1	2	2	3			1			3	1	1			3
1902.	9	7	2	6	1					2	3	2	2		2	7
1903.	8	7	1	7	1						4	2	2	1	1	1
1904.	16	8	8	12	4	1			2	3	4	2	2	1		11
1905.	6	5	1	5	1					3	1	1	2			3
1906.	10	8	2	7	3	1			1	2	1	1	2	1		4
1907.	14	12	2	11	3	1				2	2	3	3	2		6
1908.	11	9	2	8	3	1				1	3	3	3			5
1909.	7	4	3	5	2					2	2	2	2			5
1910.	12	6	6	9	3	2				3	1	2	2			4
1911.	9	7	2	8	1	1				3	2	2	2	1	1	3
1912.	9	7	2	6	2	1				3	2	2	2	1		6
1913.	8	4	4	4	2	1				4		1	1	1		4
1914.	13	11	2	5	3	1	1			1	1	5	3			5
1915.	17	15	2	16	4	1	1			2	4	2	3			9
1916.	15	15		14	1	1			1	4	5	5	3			10
1917.	11	7	4	10	1	2			1	1	2	3	3			11
1918.	12	8	4	10	2	2	1		1	2	4	2	2	1	1	3
1919.	11	8	3	7	4	2	1		2	1		2	2	1	1	4
Total.	214	161	53	169	45	14	4	1	10	40	43	48	35	12	7	108



TABLE II.—Deaths from tuberculosis in the town of H.

Year.	Deaths from tuberculosis.					Age distribution.										Em- ployed in mill.	Not em- ployed in mill.
	Num- ber.	Male.	Fe- male.	Pul- monary tuber- culosis.	Tuber- culosis, other forms.	0-5	6-10	11-15	16-20	21-30	31-40	41-50	51-60	61-70	70+		
1900.....	10	4	6	7	3	2		1	2	3	1				1		10
1901.....	5	2	3	3	2	2				1	2						5
1902.....	6	3	3	4	2	1				2	2						6
1903.....	4	1	3	2	2				1	1	1		1				4
1904.....	4	1	4	3	1	2				1				1			4
1905.....	5	1	4	1	4	3				1		1					5
1906.....	3	2	1	2	1	1									1		3
1907.....	3		3	2	1						1						3
1908.....	1	1	1	1	1								1				1
1909.....	1	1	1	1							1						1
1910.....	1	1	1	1	1					1	3						1
1911.....	5	1	4	4	1												5
1912.....																	
1913.....	2	2		2							1						2
1914.....	3	3	3	3	1					1	2	1					3
1915.....	1	1	1	1	1			1									1
1916.....	1	1		1													1
1917.....	2	2		1	1							1	2				2
1918.....																	
1919.....																	
Total.....	57	20	37	38	19	11		3	5	11	14	5	5	1	2		57

Group.	Period covered.	Per cent of deaths from tuberculosis, all forms.	
		Males.	Females.
Mill district.....	1900-1919	75	25
Connecticut.....	1900-1919	57	43
Experience of Metropolitan Life Insurance Co.....	1911-1916	59	41

Comparing the figures obtained from Table I with the experience of the Metropolitan Life Insurance Co. and with the figures for the State of Connecticut as a whole, it will be observed that the deaths from tuberculosis for males and females in the "mill district" were in the proportion of 75 to 25; whereas, according to the experience of the Metropolitan Life Insurance Co., 59 per cent of deaths from tuber-

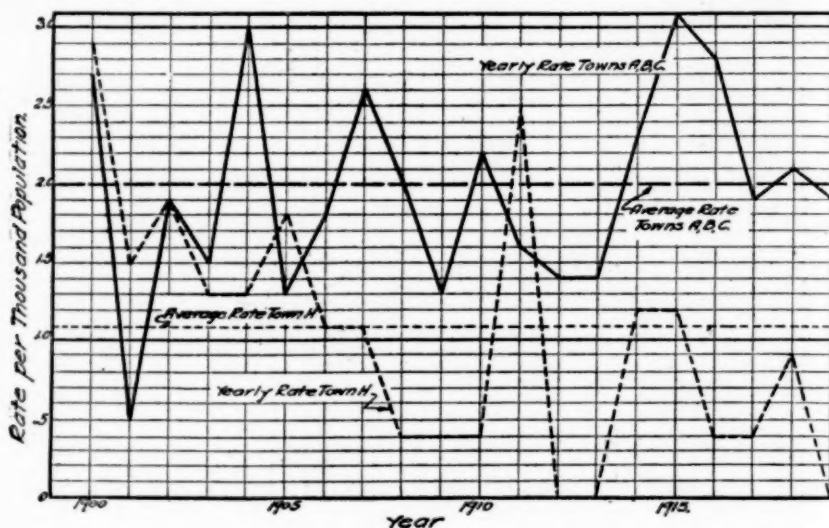


CHART I.—Tuberculosis death rates in the towns A, B, C, and H.

culosis of all forms occur in males and 41 per cent in females, and the figures for the State of Connecticut correspond closely with 57 per cent for males and 43 per cent for females. These figures are merely suggestive, however, in view of the fact that no analysis of sex and age composition of the population of towns A, B, and C is available. The table for the town of H (Table II) discloses a very different condition. Out of 57 deaths for tuberculosis in the years 1900-1919, 20 were of males and 37 of females. The existence until a few years ago of a large factory in the town of H, where cotton-duck cloth was made, and in which large numbers of females were employed, may in a measure account for this preponderance of female over male deaths from tuberculosis; and the presence of the ax factory, with its male employees, must similarly tend to raise the proportion of male deaths in towns A, B, and C.

TABLE III.—Deaths and death rates from tuberculosis in the towns A, B, C, and H.

Year.	Town A.			Town B.			Town C.			Towns A, B, C.			Town H.		
	Esti- mated popula- tion.	Deaths from tuber- culosis.	Death rate per 1,000.	Esti- mated popula- tion.	Deaths from tuber- culosis.	Death rate per 1,000.	Esti- mated popula- tion.	Deaths from tuber- culosis.	Death rate per 1,000.	Esti- mated popula- tion.	Deaths from tuber- culosis.	Death rate per 1,000.	Esti- mated popula- tion.	Deaths from tuber- culosis.	Death rate per 1,000.
1900.....	1,302	5	3.8	1,218	2	1.6	2,678	7	2.6	3,424	14	2.7	3,424	10	2.9
1901.....	1,305	2	1.5	1,228	4	3.2	2,683	1	.3	3,294	3	.6	3,294	5	1.5
1902.....	1,309	2	1.5	1,238	3	2.4	2,689	3	1.1	3,163	9	1.9	3,163	6	1.9
1903.....	1,312	.....	.....	1,249	7	5.5	2,694	5	1.8	3,032	8	1.5	3,032	4	1.3
1904.....	1,316	3	2.2	1,259	3	2.4	2,700	6	2.2	2,902	16	3.0	2,902	4	1.3
1905.....	1,320	2	1.5	1,263	1	.8	2,705	3	1.1	2,771	6	1.3	2,771	5	1.8
1906.....	1,323	2	1.5	1,280	2	1.5	2,711	6	2.2	2,640	10	1.8	2,640	3	1.1
1907.....	1,327	1	.7	1,290	2	1.5	2,716	11	4.0	2,510	14	2.6	2,510	3	1.1
1908.....	1,330	2	1.5	1,300	4	3.0	2,722	5	2.2	2,379	11	2.0	2,379	1	.4
1909.....	1,334	5	3.7	1,311	1	.7	2,727	1	.3	2,248	7	1.3	2,248	1	.4
1910.....	1,339	2	1.4	1,321	.....	.....	2,733	10	3.6	2,117	12	2.2	2,117	1	.4
1911.....	1,341	2	1.4	1,331	4	3.0	2,739	3	1.1	1,987	9	1.6	1,987	5	2.5
1912.....	1,345	1	.7	1,342	4	3.0	2,745	3	1.1	1,853	8	1.4	1,853	.....	.....
1913.....	1,349	.....	.....	1,352	5	3.7	2,751	3	1.1	1,728	8	1.4	1,728	.....	.....
1914.....	1,352	3	2.2	1,352	5	3.7	2,757	7	2.5	1,599	13	2.3	1,599	2	1.2
1915.....	1,373	1	.6	1,375	7	5.0	2,722	9	3.3	2,379	17	3.1	2,379	3	1.2
1916.....	1,340	4	2.9	1,347	4	2.9	2,676	7	2.6	2,353	15	2.8	2,353	1	.4
1917.....	1,401	.....	.....	1,334	3	2.2	2,611	8	3.0	2,336	11	1.9	2,336	1	.4
1918.....	1,403	2	1.2	1,274	3	2.3	2,573	8	3.1	2,122	12	2.1	2,122	2	.9
1919.....	1,702	2	1.1	1,214	3	2.4	2,671	6	2.2	1,780	11	1.9	1,780	.....	.....
Total.....	27,389	41	a 1.5	25,894	61	a 2.4	54,093	112	a 2.1	48,622	214	a 2.0	48,622	57	a 1.1

a Average.

Table III gives the specific death rates from tuberculosis of all forms from 1900 to 1919, inclusive, for each of the four towns and for the "mill district" (towns *A*, *B*, and *C*) as a whole. The average rates for *C*, 2.0 per thousand population, and *B*, 2.4 per thousand, are materially higher than the rate for the State of Connecticut, which is 1.5 (Table VII), whereas the rate for *A*, 1.5, is the same as that for the State. The town of *H* has a specific death rate from tuberculosis of 1.1 per thousand population, which is about one-half that of the "mill district," viz, 2 per thousand. (See Chart 1.) The experience of the industrial department of the Metropolitan Life Insurance Co.<sup>3</sup> corresponds very closely with that of the "mill district," as shown in the following table:

Group.	Period covered.	Tuber- culosis death rate per 1,000, all ages.
Mill district.....	1900-1919	2.0
Town <i>H</i> .....	1900-1919	1.1
Connecticut.....	1900-1919	1.5
Experience of the Metropolitan Life Insurance Co.....	1911-1916	2.0
United States registration area.....	1910	1.6

No data are available from which the age and sex distribution of the mill district population can be adjusted to that of the State as a whole, and so these differences again are merely suggestive.

Computing the ratio of the number of deaths from tuberculosis to the total deaths from all causes in each of the towns, we find that for the "mill district" the number of deaths from tuberculosis for the 20-year period is 12.4 per cent of the total deaths. For town *H* this figure is 7.6 per cent and for the State of Connecticut, 9.6 per cent. The "mill district" gives a ratio which is 2.8 and 4.8 per cent higher than that for the State and the town of *H*, respectively. All these ratios are low as compared with the general experience of the registration area.

<sup>3</sup> Mortality Statistics of Insured Wage Earners and their Families (p. 45, Table 15). By Dr. L. I. Dublin.

TABLE IV.—Deaths and death rates from tuberculosis among workers in mill.

Year.	Mill population.			Deaths in mill.			Death rate per 1,000.		Cause of death.		Age distribution.					
	Total.	Grind- ers and polish- ers.	Others.	Total.	Grind- ers and polish- ers.	Others.	Grind- ers and polish- ers.	Others.	Pul- monary culosis.	Tuber- culosis, other forms.	21-30	31-40	41-50	51-60	61-70	71-80
1900.....	673	194	479	7	6	1	30.9	2.1	7	.....	.....	1	6	.....	.....	.....
1901.....	638	197	461	3	3	.....	15.4	.....	3	.....	.....	1	1	.....	.....	.....
1902.....	644	194	450	7	6	1	31.6	2.1	6	1	.....	1	2	.....	.....	.....
1903.....	663	190	473	5	4	1	19.6	1.9	5	.....	.....	3	1	.....	2	.....
1904.....	725	204	521	3	1	2	4.3	3.6	3	.....	.....	.....	.....	.....	.....	.....
1905.....	818	229	589	4	3	1	11.5	1.5	4	.....	.....	.....	.....	1	.....	.....
1906.....	882	251	631	4	3	1	30.4	1.4	4	.....	.....	1	1	.....	1	.....
1907.....	935	263	673	9	8	1	15.5	3.2	8	1	.....	1	3	.....	2	.....
1908.....	874	257	617	6	4	2	4.0	3.3	2	2	.....	2	1	.....	3	.....
1909.....	847	249	598	3	1	2	8.5	1.6	3	.....	.....	.....	.....	.....	.....	.....
1910.....	801	235	566	3	2	1	17.6	1.4	6	.....	.....	.....	.....	.....	.....	.....
1911.....	962	283	679	6	5	1	13.9	.....	4	.....	.....	2	2	.....	.....	.....
1912.....	909	287	622	5	4	.....	13.6	1.5	4	.....	.....	.....	1	.....	.....	.....
1913.....	955	293	662	5	4	1	32.6	1.7	4	.....	.....	1	3	.....	.....	.....
1914.....	821	245	576	9	8	1	47.2	3.4	8	1	.....	1	4	.....	2	.....
1915.....	744	168	576	10	8	2	47.5	1.9	10	.....	.....	2	3	.....	3	.....
1916.....	731	212	519	11	10	1	47.2	.....	11	.....	.....	3	4	.....	3	.....
1917.....	782	224	558	3	2	1	8.9	1.9	3	.....	.....	.....	1	.....	1	.....
1918.....	781	212	569	4	4	.....	18.8	.....	4	.....	.....	2	2	.....	.....	.....
1919.....	827	197	630	4	4	.....	20.3	.....	4	.....	.....	.....	.....	2	.....	.....
Total.....	16,153	4,584	11,569	106	87	19	19.0	1.6	98	8	17	25	34	22	6	2

• Average.

**Tuberculosis Death Rate Among Polishers and Grinders and Among Other Employees of the Ax Factory.**

In Table IV are tabulated the mill population statistics, the number of deaths and the death rates from tuberculosis, the cause of death (by type of tuberculosis), and the age distribution of the deaths.

As previously pointed out, the mill population was divided into two groups: (a) Polishers and grinders; (b) others in mill. The purpose of this particular statistical division of the workers was to obtain a norm for use as a basis of comparison; any peculiar hazard involved in the occupation of grinder and polisher would, it was felt, be reflected by the difference of death rates between the two groups of mill employees.

The mill population figures, as noted earlier in this paper, were obtained from the plant superintendent. These figures, for both "polishers and grinders" and "others in mill," are the average of the *total* shop population for each of the 12 months during the year. In this manner an employee on the plant pay roll for only a day during the course of one month was counted in the population statistics. There is of course a statistical error involved here, but its only effect would be to *decrease* any rates computed with these population figures as a basis. It has been found impossible to eliminate this error, but it must be very small, as the labor turnover at the plant is exceedingly low (in the neighborhood of 10 per cent a year).

Examination of Table IV reveals the astounding death rate of 19 per 1,000 for polishers and grinders as compared with 1.6 per 1,000 for others in mill.

There are several important differences between the two groups of workers, which help to account for this extraordinary difference. In the first place, the grinders and polishers and others in mill are not derived from the same race stock. The grinders are without exception of foreign race stocks. At the present time this group consists mainly of Poles, Slavs, and Lithuanians, whereas the polishers are in most cases Americans. The "others-in-mill" group is made up mostly of American workers. It was obviously impossible to obtain exact statistics on this subject or concerning the age distribution of the workers. It is the opinion of the plant superintendent, however, that the age grouping of the majority of the workers in both classes coincides very closely.

The home conditions of these two groups of workers, so far as can be determined, are by no means identical. The grinders as a rule live in very close, poorly ventilated rooms, amidst exceedingly dirty surroundings, whereas the other workers in the mill occupy homes characteristic of the American workman of the middle class.



Another factor which constitutes a marked difference between the two groups of workers is the actual personal habits of the men. The grinders have the firmly established reputation of being heavy drinkers, and throughout the whole district it is agreed that prior to the days of prohibition a majority of these men would repair to the saloon directly after the close of the day's work and return home only after many hours' exposure in their working clothes which were usually damp from the splashing of the water used on the grinding wheels.

It is obvious that such differences in nationality, home conditions, and personal habits must have a bearing on the mortality from tuberculosis among the grinders and polishers as compared with the others in mill. It does not, however, seem reasonable to assume that they can account for the enormous difference between a death rate of 19 and 1.6 per 1,000. Furthermore, the tendency to alcoholism is in itself a well-recognized result of employment in a dusty atmosphere irritating to the mucous membrane, rather than an independent causal factor.

The factor contributing most largely to this enormous death rate would appear to be the difference in the conditions under which these two groups of people labor for a period of from 6 to 8 hours daily. The grind shops occupy several buildings, the main one of which is 222 feet long and 33 feet wide. They are of ordinary wooden frame construction, with small windows. The rooms are very inadequately heated, and there is no ventilation system in use in any of them. Large grinding wheels are mounted on supports, so that the wheels turn in a pit while a stream of water from a 1-inch pipe runs continuously on the stone. The workers sit astride supports which are much like riding saddles mounted on a spring and projecting over the side of the stone; the object to be ground is held between the saddle and stone, and in this manner the workers succeed in bringing all their body weight to bear on the object being ground. The stones in all cases turn upward toward the worker, and while the object is being ground a stream of water, sparks, and dust is constantly projected toward his face.

Examinations were made of the dust content of the air of these grinding shops and the results were published in Public Health Reports, October 8, 1920.<sup>1</sup> This study revealed the fact that the air of the wet-grinding shops contained an average of 15,800,000 particles of dust of such a size as to be of sanitary significance. This report continues: "Since the dust present is of such a high inorganic content and the particles are so minute (practically all being 1 or 2 microns in diameter) and are present in such enormous numbers, one is forced to the conclusion that, judged by our present knowledge

<sup>1</sup> See footnote 2, page 159.

on this subject, the dusty condition of the air of these wet-grinding shops constitutes a most serious hazard to the health of the worker."

Chart 2 compares the death rate of the employees of the ax factory as a whole with the death rate for the rest of the population of the towns A, B, and C. Chart 3 compares the death rates from tuberculosis of "grinders and polishers" with those of the State of Connecticut, showing in the latter case, (1) Death rates from tuberculosis, both sexes; and (2) death rates from tuberculosis among the male population of all ages. These rates do not furnish such good

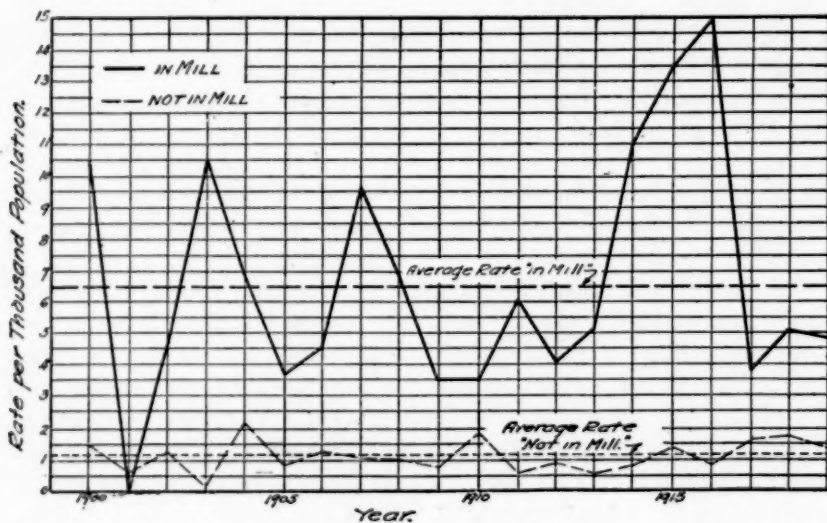


CHART 2.—Death rates from tuberculosis among persons "in mill" and "not in mill" for towns A, B, and C.

comparisons as the rates for "others in mill," because of the error arising from the factors of age distribution, difference of environment, etc. It is, however, of interest to note the coincidence in the death rates from tuberculosis of three classes—

Death rate per 1,000.

"Others in mill".....	1.6
Connecticut, male and female, all ages.....	1.5
Connecticut, male, all ages.....	1.7

Table V gives the death rates from tuberculosis among citizens of the "mill district" who do not work in the factory and so are not directly affected by the industry. The death rate for the 20-year period, viz, 1.2 per thousand population, compares very favorably with that of the town of H, which is 1.1 per thousand. It must be borne in mind, however, that we have subtracted a large number of men of 20 years of age and over from the total population of the "mill district," which would naturally lower the death rate from tuberculosis.

TABLE V.—Deaths and death rates from tuberculosis among civilians not in mill, towns A, B, and C.

Year.	Popula- tion of towns A, B, and C, minus the mill popula- tion.	Deaths among civilians not in mill.		Form of tuberculosis.		Age distribution.									
		Total.	Death rate per 1,000.	Pulmo- nary.	Other forms.	0-5	6-10	11-15	16-20	21-30	31-40	41-50	51-60	61-70	70+
1900	4,525	7	1.5	5	2	1			2	2	2	1	1		
1901	4,558	3	.6	2	1		1			1	2		1		2
1902	4,592	6	1.3	3	3										1
1903	4,592	1	.2	1											
1904	4,550	11	2.2	7	4	1			2	3	1	1	2	1	
1905	4,476	3	.7	2	1										
1906	4,432	6	1.3	3	3	1			1	1	1	1	1	1	
1907	4,387	5	1.1	3	2	1				1	1	2			
1908	4,478	5	1.1	4	1	1				1	1	1	1	1	
1909	4,525	4	.8	4											
1910	4,532	9	1.9	6	3	2				2	2	1	2	1	
1911	4,449	3	.6	2	1	1				1	1			1	
1912	4,403	4	.9	2	2	1				1	2			1	
1913	4,497	3	.6	1	2		1					2			
1914	4,650	4	.8	1	3	1	1		1				1		
1915	4,726	7	1.4	6	1					1	2	2			
1916	4,632	4	.8	3	1	1			1	1	3	1	1		
1917	4,774	8	1.6	7	1	2			1	1	2	1	2		
1918	4,785	8	1.7	6	2		1		1	1	1	1	1	1	
1919	4,760	7	1.4	3	4	2	1		2	1					
Total.....	91,333	108	1.2	71	37	14	4	1	10	23	18	14	13	6	5

a Average.

Charts 2, 3, and 4 are of special interest because they show that, as the population not directly affected by this hazardous industry is eliminated, the death rate from tuberculosis is increased for the affected group. The "polishers and grinders" reside in the "mill district," which has a specific death rate from pulmonary tubercu-

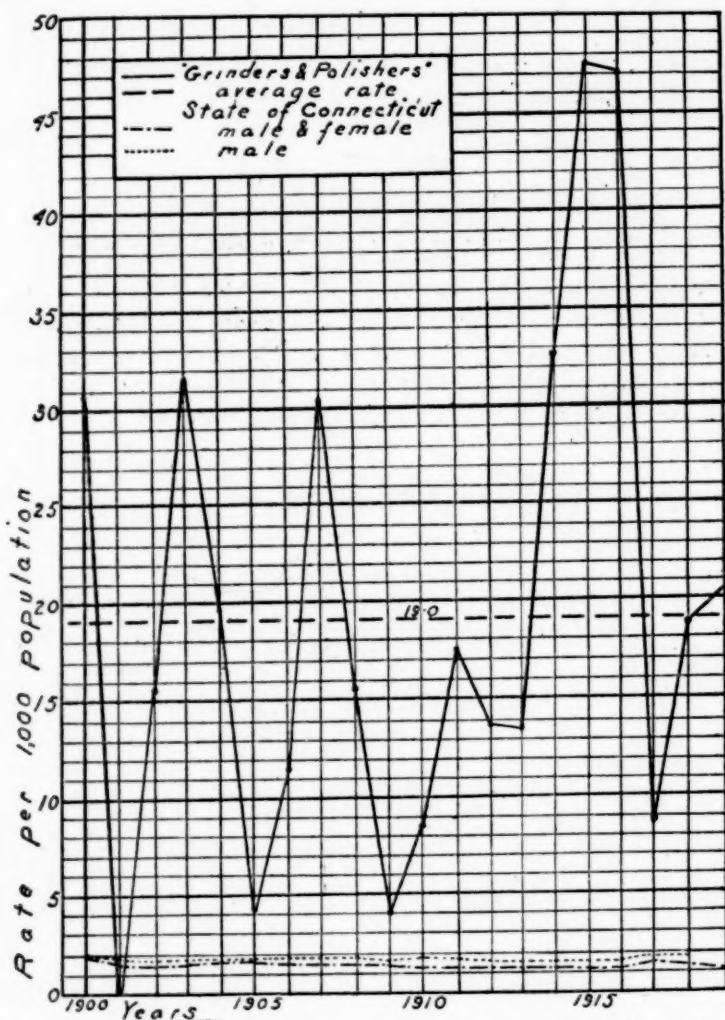


CHART 3.—Death rates from tuberculosis among polishers and grinders and for the State of Connecticut.

losis of 2 per thousand population. (See Chart 1.) If the population of the "mill district" is divided into (A) in mill and (B) not in mill, as presented in Chart 2, the rate for those not in mill is 1.2 per thousand population, while that for those "in mill" is 6.5 per thousand. If those "in mill" are divided as shown in Chart 4 into (A) "polishers and grinders," and (B) "others in mill" we get the respec-

tive death rates of 19 and 1.6 per thousand population. For reasons already stated we are unable to divide "grinders and polishers" into (1) "polishers," (2) "dry grinders," and (3) "wet grinders," and make a separate study of the three groups. It is well known locally, however, that the death rate among the wet grinders is much greater than that for the other two groups.

In comparison with the death rate from tuberculosis among "polishers and grinders" (19 per thousand), the Report of the South African Commission of 1912 on Miners' Phthisis states that the death rate from miners' phthisis for the year 1912 was 13.8 per thousand, which is considerably lower than that found among the "polishers and grinders" of our Connecticut factory.

#### Age Incidence of Tuberculosis in the Population Groups Studied.

Table VI indicates the age distribution of deaths from pulmonary tuberculosis among two groups of workmen, viz, "polishers and grinders" and "others in the mill." The members of the two groups commence labor presumably in the same physical condition, and, so far as could be learned, at about the same age.

TABLE VI.—Actual number of deaths from pulmonary tuberculosis of mill employees, by age periods.

Group.	Age period.					Total.
	21-30	31-40	41-50	51-60	61-70	
Polishers and grinders.....	11	21	30	29	5	87
Others in the mill.....	6	4	4	2	1	17

TABLE VIA.—Percentages of deaths as shown in Table VI.

Group.	Age period.					Total.
	21-30	31-40	41-50	51-60	61-70	
Polishers and grinders.....	12.7	24.1	34.5	23.0	5.7	100
Others in the mill.....	35.2	23.6	23.6	11.7	5.9	100

TABLE VII.—Death and death rates from tuberculosis in the State of Connecticut.

Year.	Estimated total population.	Estimated male population.	Total deaths from tuberculosis.	Form of tuberculosis.		Sex.		Age distribution.								Death rate per 1,000.			
				Pulmonary.	Other forms.	Male.	Female.	0-5	6-10	11-20	21-30	31-40	41-50	51-60	61-70	70+	Not shown.	Total.	Male.
1900	908,355	454,224	1,696	1,539	157	910	786	143	18	162	435	332	230	135	93	80	6	1.8	1.9
1901	929,430	465,228	1,624	1,457	157	897	727	125	26	138	436	345	224	161	102	60	7	1.7	1.7
1902	950,593	476,162	1,503	1,353	147	826	677	92	32	152	385	331	200	140	103	51	7	1.5	1.7
1903	971,581	487,096	1,532	1,354	198	839	723	133	29	158	388	347	206	144	87	65	5	1.6	1.7
1904	992,557	498,030	1,603	1,412	194	877	729	129	35	155	405	334	224	116	101	44	3	1.6	1.7
1905	1,013,732	508,934	1,687	1,453	234	914	773	158	31	157	434	379	242	145	72	66	3	1.6	1.7
1906	1,034,808	519,898	1,600	1,369	231	892	708	145	32	169	414	381	198	124	72	58	7	1.5	1.7
1907	1,055,883	530,832	1,707	1,527	180	925	782	126	28	119	434	413	260	141	97	51	8	1.5	1.7
1908	1,076,957	541,766	1,611	1,301	220	939	672	117	22	155	416	381	251	132	89	46	2	1.5	1.7
1909	1,098,034	552,700	1,637	1,431	225	923	734	135	29	154	405	378	258	164	88	43	2	1.5	1.6
1910	1,119,110	553,642	1,669	1,420	249	964	705	117	31	171	399	421	265	151	90	51	2	1.4	1.7
1911	1,140,004	574,576	1,700	1,386	314	958	742	114	37	141	457	370	297	164	103	42	5	1.4	1.6
1912	1,169,898	595,510	1,646	1,353	293	973	676	147	25	151	388	359	287	131	104	41	2	1.4	1.6
1913	1,181,793	606,444	1,659	1,374	285	973	676	147	45	132	424	382	272	134	75	46	2	1.4	1.6
1914	1,202,688	617,378	1,755	1,443	313	1,043	713	135	31	143	435	372	328	184	84	43	1	1.4	1.6
1915	1,241,314	638,312	1,727	1,439	291	1,040	687	154	23	157	403	367	321	171	88	42	1	1.3	1.6
1916	1,291,989	649,246	1,795	1,489	305	1,057	738	162	26	165	440	393	298	170	90	41	1	1.3	1.6
1917	1,354,390	660,180	2,078	1,719	359	1,217	831	201	42	170	494	480	335	216	93	60	48	1.5	1.8
1918	1,401,065	671,114	1,727	1,481	246	1,219	854	187	32	178	565	433	326	192	103	46	1	1.4	1.8
1919	1,464,360	682,048	1,704	1,484	220	1,219	854	187	32	178	565	433	326	192	103	46	1	1.1	1.1
Total..	22,569,694	11,263,420	34,051	29,140	4,911	18,435	13,902	2,711	575	2,987	8,061	7,237	5,015	2,924	1,737	976	62	a 1.5	b 1.7

a Average.

b Average rate for 19 years.



These tables throw some light on the age distribution at time of death of the two groups of workers, "polishers and grinders," and "others in the mill." In the one case, "others in the mill," who are not exposed to metallic and mineral dusts, there is a gradual decline in the deaths from tuberculosis from 30 years of age on, whereas in

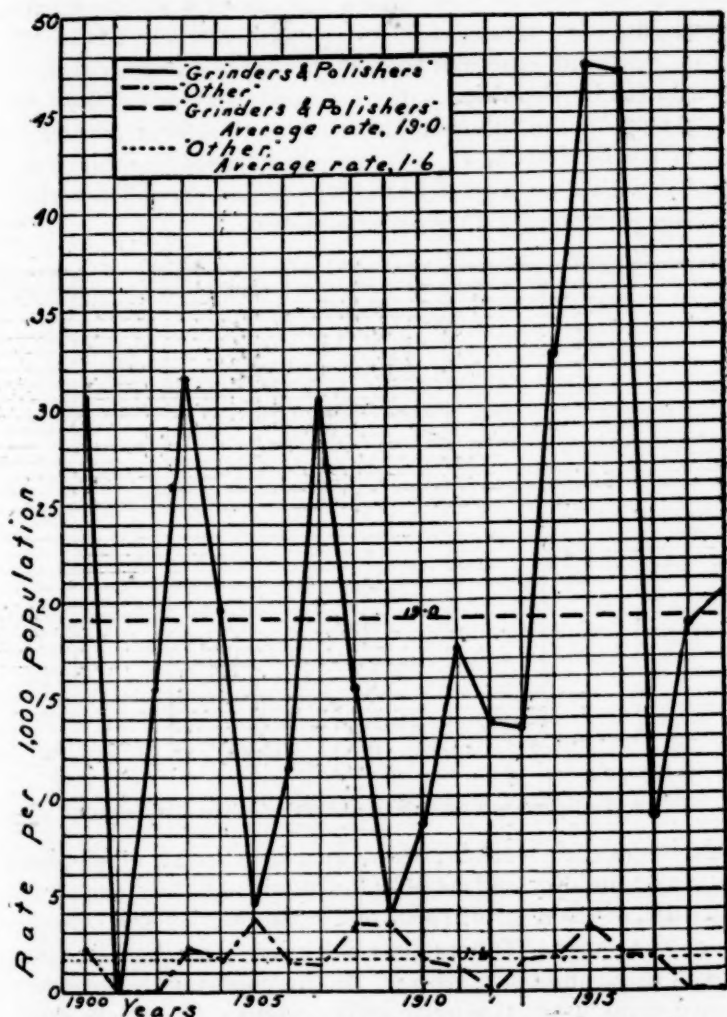


CHART 4.—Death rates from tuberculosis among polishers and "others" in mill.

the other group, viz, "grinders and polishers," there is a rapid increase, the deaths for the second 10-year period, viz, 31-40 years, being almost double those for the first 10-year period. This increase continues until the peak is reached in the 41-50-year period, after which there is a rapid decline. Too much credence, however, can not be placed upon these figures, as, owing to the absence of the age

distribution of the total number of workers in the various age groups the proportionate mortality, worked out as it is on a percentage basis, can present only a crude index at best.

Chart 5 presents the age distribution of deaths from tuberculosis for the State of Connecticut, which, by contrast, again brings out the fact that the form of tuberculosis associated with the inhalation of siliceous dust is characterized by a comparatively advanced age at death. Such differences in the age incidence of tuberculosis have been attributed by Brownlee to the assumed existence of biologically distinct strains of the tubercle bacillus, but Cummins (*International Journal of Public Health*, I, 137) has shown that the curve of age distribution with a peak at the later age periods is characteristic of tuberculosis associated with dust inhalations.

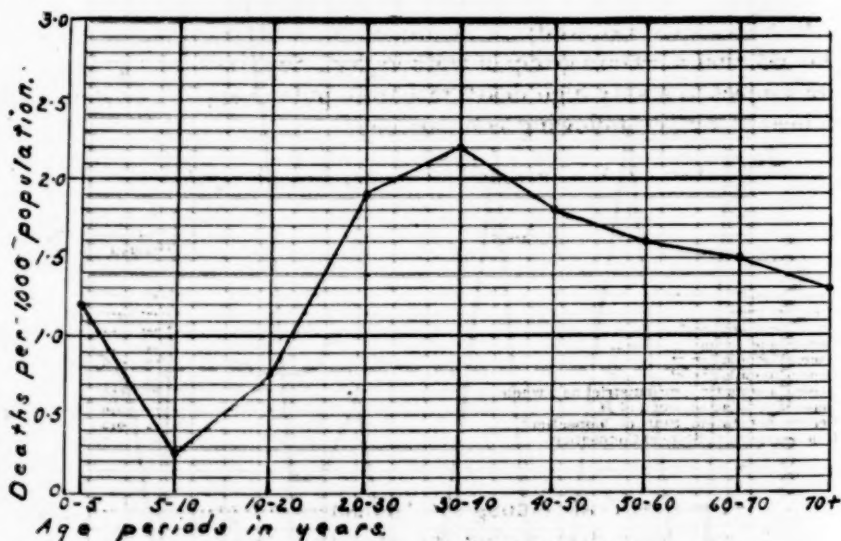


CHART 5.—Deaths from tuberculosis by age periods in the State of Connecticut.

For six hours each workday these men breathe an atmosphere of high relative humidity and heavily laden with acutely angular hard siliceous dust, which results in a chronic inflammation and subsequent fibrosis of the lungs. Tuberculous infection later becomes superimposed on the injured lung tissue. As this condition is the resultant of a hazardous industry, it is quite aptly designated "industrial tuberculosis;" not that it is a new form of tuberculosis, but merely because of its association with industrial activities.

#### Other Respiratory Infections Among Grinders and Polishers.

It has been stated by several investigators that persons who are exposed to the harmful effects of dusts connected with hazardous industries are more liable to other pulmonary infections, e. g., pneumonia, etc., than those not so employed. All deaths from pulmonary

infections (tuberculosis not included) from 1900 to 1919, occurring in men 20 years and over and resident of the mill district, were therefore carefully investigated.

Information concerning those persons who had been employed at the factory was obtained, and they were divided into two groups (as in the case with tuberculosis), viz, "polishers and grinders" and "others in mill." The results obtained by the author, which correspond with those of other investigators, are as follows:

*Death rate per 1,000 population from pulmonary infections other than tuberculosis.*

Polishers and grinders.....	4.3
Others in mill.....	1.7

#### Summary and Conclusions.

I. This statistical study of an industrial establishment developed the fact that a certain group of workers, viz, "polishers and grinders," are subject to a very high death rate from pulmonary tuberculosis, as indicated by the following comparisons:

*Death rate from pulmonary tuberculosis per 1,000 population.*

Group.	Period covered.	Death rate.
Polishers and grinders.....	1900-1919	19.0
Others in mill.....	1900-1919	1.6
Entire mill population.....	1900-1919	6.5
General population of town A.....	1900-1919	1.5
General population of town B.....	1900-1919	2.4
General population of town C.....	1900-1919	2.1
General population, mill district as a whole.....	1900-1919	2.0
General population, town of H.....	1900-1919	1.1
General population, State of Connecticut.....	1900-1919	1.5
Male population, State of Connecticut.....	1900-1919	1.7

The excess death rate among the "polishers and grinders" indicates that 78 men have died during the past two decades as a result of industrial tuberculosis in these particular grinding shops.

II. The maximum number of deaths from tuberculosis among "polishers and grinders" occurs at the age of 45 years, instead of at 25 years as among the other operatives in the mill. This peculiar age incidence and the enormous excess death rate for the "polishers and grinders" are closely associated with the environmental condition of the industry, although the problem is complicated by the fact that the grinders also represent a foreign group of low social status and intemperate habits.

III. In view of the facts brought out by Winslow and Greenburg in regard to the dust content of the air of various workrooms in the plant, it seems clear that the dust produced in wet grinding is largely responsible for the enormous incidence of tuberculosis found in connection with this industrial establishment. The practical conclusion

to be drawn from this investigation is that wet grinding, instead of being a dustless and innocuous process, as has commonly been supposed, may, under certain conditions, be a dusty and exceedingly dangerous one, particularly when grinding wheels of natural sandstone are used. When such is the case, every effort should be made to substitute a dry-grinding process properly protected by the installation of exhausts.

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### **ORDINANCE HELD INVALID BECAUSE SUBJECT WAS NOT CLEARLY EXPRESSED IN TITLE.**

A recent decision<sup>1</sup> of the Supreme Court of Iowa illustrates well the necessity for strict compliance with all legal requirements when drafting legislation.

An ordinance of the city of Des Moines made it unlawful for any teacher or person in charge of any school to admit any pupil until after it had been proved that such pupil had been successfully vaccinated. Other sections of the ordinance provided for the promulgation of regulations by the board of health, made it the duty of teachers and others to carry out and enforce the provisions of the ordinance, and provided a penalty for its violation. The ordinance was entitled "An ordinance requiring the vaccination of school children and providing for rules, regulations, and penalties for its violation."

A State law provided that "No ordinance shall contain more than one subject, which shall be clearly expressed in its title; \* \* \*."

The Supreme Court of Iowa held that the title not only failed to clearly express the subject of the ordinance but was inconsistent therewith, and that the ordinance was invalid because of noncompliance with the statute.

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### **FIFTIETH ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.**

**To be Held in New York City November 14-18, 1921.**

Announcement has been made that the fiftieth annual meeting of the American Public Health Association will be held this year in New York City, and the date tentatively set is November 14-18.

The first organization meeting of the association was held in New York City on April 18, 1872, and the meeting of 1921 will mark its semicentennial. Dr. Stephen Smith, the founder and first president, now living in the City of New York, is just entering upon his 99th

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<sup>1</sup> *Tones et al. v. Independent School Dist. of Des Moines et al.*, 183 N. W., 157.

year, still active and vigorous, and is expected to take part in the semicentennial celebration.

It is planned as an important feature of this year's meeting to conduct demonstrations of public health administrative methods in the laboratories, executive offices, garbage-disposal plants, and similar centers of public health interest, in which New York City offers splendid opportunity.

In connection with the celebration it is expected to present a review of the progress of the various branches of public health within the last fifty years.

The sectional programs will include Public Health Administration, Vital Statistics, Laboratory, Food and Drugs, Sociology, Sanitary Engineering, Industrial Hygiene, and Child Hygiene.

#### DEATHS DURING WEEK ENDED JAN. 22, 1921.

*Summary of information received by telegraph from industrial insurance companies for week ended Jan. 22, 1921. (From the "Weekly Health Index," Jan. 25, 1921, issued by the Bureau of the Census, Department of Commerce.)*

Policies in force.....	45,103,062
Number of death claims.....	8,483
Death claims per 1,000 policies in force, annual rate.....	9.8



Deaths from all causes in certain large cities of the United States during the week ended Jan. 22, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years. (From the "Weekly Health Index," Jan. 25, 1921, issued by the Bureau of the Census, Department of Commerce.)

City.	Estimated population, July 1, 1921.	Week ended Jan. 22, 1921.		Average annual death rate per 1,000. <sup>2</sup>	Deaths under 1 year.		Infant mortality rate. <sup>3</sup>	
		Total deaths.	Death rate. <sup>1</sup>		Week ended Jan. 22, 1921.	Pre-vi-ous year or years. <sup>2</sup>	Week ended Jan. 22, 1921. <sup>4</sup>	Corre-spond-ing week, 1919.
Akron, Ohio.....	229,195	34	7.7	*9.5	7	*6	67	106
Albany, N. Y.....	115,071	31	14.0	C 19.6	3	C 6	67	81
Atlanta, Ga.....	207,473	54	13.6	C 28.8	9	C 18		
Baltimore, Md.....	751,537	220	15.3	A 19.4	22	A 26	62	98
Birmingham, Ala.....	186,133	44	12.3	A 16.5	10	A 8		
Boston, Mass.....	757,634	219	15.1	A 20.2	27	A 36	73	97
Bridgeport, Conn.....	149,967	31	10.8	A 19.3	7	A 8	88	88
Buffalo, N. Y.....	519,608	162	16.3	C 17.1	36	C 27	139	110
Cambridge, Mass.....	110,444	38	17.9	A 16.0	4	A 6	72	70
Camden, N. J.....	119,672	45	19.6		9			
Chicago, Ill.....	2,780,655	670	12.6	A 16.8	111	A 127		
Cincinnati, Ohio.....	463,418	131	16.9	C 20.8	13	C 15	86	88
Cleveland, Ohio.....	831,138	194	12.2	C 14.9	27	C 42	72	95
Columbus, Ohio.....	215,358	66	14.0	C 25.5	11	C 15	127	94
Dallas, Tex.....	165,282	37	11.7	A 13.9	3	A 4		
Dayton, Ohio.....	158,119	51	16.8	C 17.3	8	C 8	131	89
Denver, Colo.....	263,152	86	17.0	A 16.3	8			
Detroit, Mich.....	1,070,450	220	10.7		53		100	97
Fall River, Mass.....	120,668	41	17.7	C 20.4	13	C 15	105	119
Grand Rapids, Mich.....	141,197	35	12.9	C 14.0	9	C 4	132	85
Houston, Tex.....	144,340	35	12.6		2			
Indianapolis, Ind.....	325,213	85	13.6	C 17.2	12	C 15	93	89
Jersey City, N. J.....	302,788	82	14.1	C 16.4	15	C 9		
Kansas City, Kans.....	103,908	27	13.5		3		72	108
Kansas City, Mo.....	339,157	112	17.4	C 18.0	0	C 12		
Los Angeles, Calif.....	611,636	184	15.7	A 16.3	21	A 12	99	67
Louisville, Ky.....	235,083	82	18.1	C 25.2	13	C 6	150	96
Lowell, Mass.....	113,757	37	17.0	A 19.0	8	A 9	129	124
Memphis, Tenn.....	165,389	46	14.5	C 25.8	3	C 8		
Milwaukee, Wis.....	468,383	94	10.5	A 13.4	13	A 24	63	101
Minneapolis, Minn.....	392,815	82	10.9	C 11.8	8	C 7	46	65
Nashville, Tenn.....	119,535	38	15.7	C 18.7	9	C 6		
New Bedford, Mass.....	125,012	32	13.3	A 17.6	8	A 10	123	122
New Haven, Conn.....	167,007	38	11.9	C 19.1	5	C 8	60	74
New Orleans, La.....	394,657	126	16.6	A 21.3	11	A 17		
New York, N. Y.....	5,751,867	4,364	12.4	C 17.2	213	C 239	81	81
Newark, N. J.....	424,885	104	12.8	C 17.7	2	C 17		
Norfolk, Va.....	121,260	29	12.5		17		35	108
Oakland, Calif.....	228,472	50	11.5	A 12.9	8	A 6	101	61
Omaha, Nebr.....	197,066	58	15.3	C 11.2	8	C 5		
Paterson, N. J.....	137,463	40	15.2		5			
Philadelphia, Pa.....	1,886,212	518	14.5	*18.6	71	*78	83	91
Pittsburgh, Pa.....	596,413	203	17.7	C 21.7	27	C 34	96	114
Portland, Oreg.....	264,839	53	10.4	C 9.1	5	C 6	50	69
Providence, R. I.....	239,645	68	14.8	C 14.2	9	C 5		
Richmond, Va.....	175,686	55	16.3	C 16.5	12	C 6	146	106
Rochester, N. Y.....	305,229	78	13.3	C 17.0	13	C 12	101	74
St. Louis, Mo.....	786,164	224	14.9	C 17.4	20	C 31		
St. Paul, Minn.....	237,781	76	16.7	C 11.9	14	C 8	141	68
Salt Lake City, Utah.....	121,595	33	14.2	A 16.3	6		93	77
San Francisco, Calif.....	520,546	170	17.0	C 15.9	7	C 8	41	62
Seattle, Wash.....	327,227	61	9.7	A 9.3	12	A 6	100	55
Springfield, Mass.....	135,877	33	12.7		4		60	81
Syracuse, N. Y.....	177,265	49	14.4	C 13.5	5	C 6	60	91
Toledo, Ohio.....	253,606	60	12.3	A 16.5	6	A 10	60	90
Trenton, N. J.....	122,760	28	11.9	A 23.0	4	A 8		
Washington, D. C.....	454,626	130	14.9	A 16.8	18	A 10	105	85
Washington, Del.....	113,408	22	10.1	C 19.3	4			
Worcester, Mass.....	184,972	50	14.1	C 19.1	8	C 7	86	92
Yonkers, N. Y.....	103,324	18	9.1	A 16.7	3	A 6	68	80
Youngstown, Ohio.....	139,432	34	12.7		11		139	99

<sup>1</sup> Annual rates per 1,000 population.

<sup>2</sup> "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1918.

<sup>3</sup> Cities left blank are not in the registration area for births.

<sup>4</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1920.

\* Data are based on statistics of 1915, 1916, and 1917.



# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

#### Telegraphic Reports for Week Ended Jan. 29, 1921.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		CALIFORNIA—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	1	Smallpox—Continued.	
Chicken pox.....	26	San Francisco.....	44
Diphtheria.....	8	Santa Ana.....	13
Hookworm.....	137	Shasta County.....	22
Measles.....	16	Turlock.....	14
Pellagra.....	1	Scattering.....	82
Pneumonia.....	8	Typhoid fever.....	4
Scarlet fever.....	11		
Smallpox:		CONNECTICUT.	
Jefferson County.....	40	Chicken pox.....	67
Scattering.....	34	Conjunctivitis.....	3
Tuberculosis.....	11	Diphtheria:	
Typhoid fever:		Bridgeport.....	13
Madison County.....	11	Hartford.....	13
Scattering.....	13	New Britain.....	8
Whooping cough.....	7	New Haven.....	20
		Scattering.....	46
ARKANSAS.		German measles.....	1
Chicken pox.....	35	Impetigo contagiosa.....	1
Diphtheria.....	12	Influenza.....	13
Hookworm.....	1	Lethargic encephalitis.....	1
Influenza.....	37	Measles:	
Malaria.....	24	Farmington.....	11
Measles.....	85	New Britain.....	48
Pellagra.....	6	Middletown.....	11
Scarlet fever.....	18	Wallingford.....	11
Smallpox.....	4	Scattering.....	47
Trachoma.....	1	Mumps.....	62
Tuberculosis.....	12	Pneumonia (lobar).....	31
Typhoid fever.....	7	Scarlet fever:	
Whooping cough.....	7	Meriden (city).....	12
		New Haven.....	33
CALIFORNIA.		Waterbury.....	9
Cerebrospinal meningitis.....	3	Scattering.....	83
Influenza.....	37	Smallpox.....	1
Lethargic encephalitis.....	2	Trichinosis.....	1
Smallpox:		Tuberculosis (pulmonary).....	77
Berkeley.....	11	Typhoid fever.....	3
Orange County.....	9	Whooping cough.....	101

## CURRENT STATE SUMMARIES—Continued.

## Telegraphic Reports for Week Ended Jan. 29, 1921—Continued.

DELAWARE.		ILLINOIS—continued.	
	Cases.		Cases.
Anthrax—Wilmington.....	1	Smallpox:	
Chicken pox.....	4	Alexander County—Clear Creek Precinct.....	8
Diphtheria.....	2	Bunker Hill.....	12
Influenza.....	4	Chenoa.....	11
Mumps.....	1	Chicago.....	9
Pneumonia.....	2	East St. Louis.....	29
Scabies.....	1	Galesburg.....	9
Scarlet fever.....	9	Rockford.....	39
Tuberculosis.....	9	Springerton.....	8
Typhoid fever.....	2	Wayne County—Mount Erie Township..	31
Whooping cough.....	4	Typhoid fever.....	11
FLORIDA.		INDIANA.	
Diphtheria.....	12	Cerebrospinal meningitis.....	6
Influenza.....	10	Diphtheria.....	72
Malaria.....	1	Scarlet fever.....	304
Pneumonia.....	6	Smallpox.....	190
Scarlet fever.....	9	Typhoid fever.....	12
Smallpox.....	58	IOWA.	
Typhoid fever.....	10	Diphtheria.....	24
GEORGIA.		Poliomyelitis—Davis County.....	1
Chicken pox.....	33	Scarlet fever.....	82
Diphtheria.....	10	Smallpox:	
Dysentery (bacillary).....	1	Des Moines.....	12
Hookworm.....	29	Dubuque.....	20
Influenza.....	25	Oelwein.....	20
Malaria.....	14	Putnam.....	13
Measles.....	59	Shenandoah.....	15
Mumps.....	6	Scattering.....	121
Paratyphoid fever.....	2	KANSAS.	
Pneumonia.....	16	Cerebrospinal meningitis.....	1
Scarlet fever.....	4	Chicken pox.....	103
Septic sore throat.....	1	Diphtheria.....	119
Smallpox.....	55	German measles.....	4
Tuberculosis (pulmonary).....	3	Influenza.....	29
Typhoid fever.....	7	Measles.....	314
Whooping cough.....	8	Mumps.....	12
ILLINOIS.		Pneumonia.....	50
Cerebrospinal meningitis:		Scarlet fever.....	213
Chicago.....	3	Smallpox.....	173
Gillespie.....	1	Tetanus.....	1
Peru.....	1	Tuberculosis.....	60
Diphtheria:		Typhoid fever.....	7
Chicago.....	231	Whooping cough.....	97
Decatur.....	8	LOUISIANA.	
Scattering.....	57	Diphtheria.....	17
Influenza.....	19	Influenza.....	10
Lethargic encephalitis:		Scarlet fever.....	7
Chicago.....	32	Smallpox.....	67
Jacksonville.....	1	Typhoid fever.....	5
La Salle.....	1	MAINE.	
Maywood.....	1	Chicken pox.....	26
Oak Park.....	1	Diphtheria.....	27
Rockford.....	1	German measles.....	4
Pneumonia.....	321	Influenza.....	7
Scarlet fever:		Measles.....	222
Chicago.....	208	Mumps.....	6
Oak Park.....	14	Ophthalmia neonatorum.....	1
Rockford.....	18	Pneumonia.....	9
Springfield.....	53		
Scattering.....	154		

## CURRENT STATE SUMMARIES—Continued.

## Telegraphic Reports for Week Ended Jan. 29, 1921—Continued.

MAINE—continued.		MISSISSIPPI.	
	Cases.		Cases.
Scarlet fever.....	23	Cerebrospinal meningitis.....	1
Septic sore throat.....	3	Diphtheria.....	16
Smallpox.....	1	Poliomyelitis.....	4
Tuberculosis.....	17	Scarlet fever.....	24
Typhoid fever.....	5	Smallpox.....	68
Whooping cough.....	19	Typhoid fever.....	9
MARYLAND. <sup>1</sup>		MISSOURI.	
Chicken pox.....	163	Cerebrospinal meningitis.....	2
Diphtheria.....	66	Chicken pox.....	133
Dysentery.....	1	Diphtheria.....	262
German measles.....	4	Epidemic sore throat.....	45
Influenza.....	107	Influenza.....	43
Measles.....	71	Measles.....	136
Mumps.....	16	Mumps.....	47
Pneumonia (all forms).....	161	Poliomyelitis.....	1
Poliomyelitis.....	2	Scarlet fever.....	139
Scarlet fever.....	99	Smallpox.....	184
Septic sore throat.....	25	Tetanus.....	1
Smallpox.....	4	Trachoma.....	1
Tuberculosis.....	45	Tulerculosis.....	33
Typhoid fever.....	8	Typhoid fever.....	11
Whooping cough.....	116	Whooping cough.....	116
MASSACHUSETTS.		MONTANA.	
Cerebrospinal meningitis.....	3	Diphtheria.....	9
Chicken pox.....	431	Scarlet fever.....	23
Conjunctivitis (suppurative).....	4	Small pox.....	34
Diphtheria.....	222	Typhoid fever.....	2
German measles.....	14	NEBRASKA.	
Influenza.....	15	Chicken pox.....	33
Measles.....	472	Diphtheria:	
Mumps.....	84	Omaha.....	11
Ophthalmia neonatorum.....	13	Scattering.....	5
Pneumonia (lobar).....	124	Influenza.....	1
Poliomyelitis.....	3	Measles.....	7
Scarlet fever.....	271	Pneumonia.....	3
Septic sore throat.....	8	Scarlet fever:	
Smallpox.....	1	Omaha.....	13
Tuberculosis (all forms).....	163	Scattering.....	37
Typhoid fever.....	10	Smallpox:	
Whooping cough.....	165	Gage County.....	8
MINNESOTA.		Omaha.....	15
Chicken pox.....	17	Scattering.....	54
Diphtheria.....	87	Tulerculosis.....	1
Influenza.....	6	Typhoid fever.....	3
Measles.....	37	Whooping cough.....	3
Pneumonia.....	- 2	NEW JERSEY.	
Scarlet fever:		Cerebrospinal meningitis.....	3
Minneapolis.....	85	Chicken pox.....	371
Scattering.....	83	Diphtheria.....	204
Smallpox:		Influenza.....	33
Minneapolis.....	104	Measles.....	122
Scattering.....	252	Pneumonia.....	145
Tuberculosis.....	68	Poliomyelitis.....	3
Typhoid fever.....	7	Scarlet fever.....	325
Whooping cough.....	1	Smallpox.....	1
		Typhoid fever.....	5
		Whooping cough.....	294

<sup>1</sup>Week ended Friday.

## CURRENT STATE SUMMARIES—Continued.

## Telegraphic Reports for Week Ended Jan. 29, 1921—Continued.

NEW MEXICO.		TEXAS—continued.	
	Cases.		Cases.
Chicken pox.....	10	Scarlet fever.....	18
Diphtheria.....	25	Smallpox.....	23
German measles.....	1	Typhus fever.....	1
Influenza.....	2		
Measles.....	226	VERMONT.	
Mumps.....	28	Chicken pox.....	90
Pneumonia.....	8	Diphtheria.....	4
Scarlet fever.....	17	German measles.....	2
Septic sore throat.....	1	Influenza.....	3
Smallpox.....	3	Measles.....	44
Trachoma.....	1	Mumps.....	41
Tuberculosis.....	43	Pneumonia.....	1
Whooping cough.....	37	Scarlet fever.....	32
		Smallpox.....	4
NEW YORK.		Typhoid fever.....	5
(Exclusive of New York City.)		Whooping cough.....	52
Cerebrospinal meningitis:			
Buffalo.....	1	VIRGINIA.	
Syracuse.....	1	Smallpox:	
Diphtheria.....	328	Buchanan County.....	8
Influenza.....	79	Russell County.....	3
Lethargic encephalitis.....	3		
Measles.....	1,374	WASHINGTON.	
Pneumonia.....	352	Chicken pox.....	102
Poliomyelitis:		Diphtheria.....	37
Buffalo.....	1	Measles.....	41
Hocsick Falls.....	1	Mumps.....	6
Lloyd.....	1	Scarlet fever.....	48
Scarlet fever.....	408	Smallpox.....	151
Smallpox:		Tuberculosis.....	6
Clifton.....	8	Typhoid fever.....	3
Scattering.....	11	Whooping cough.....	29
Typhoid fever.....	28		
Whooping cough.....	495	WEST VIRGINIA.	
NORTH CAROLINA.		Cerebrospinal meningitis—Clarksburg.....	1
Cerebrospinal meningitis.....	4	Diphtheria.....	25
Chicken pox.....	139	Measles:	
Diphtheria.....	37	Bluefield.....	14
German measles.....	2	Charleston.....	100
Measles.....	430	Wheeling.....	11
Ophthalmia neonatorum.....	1	Scattering.....	16
Poliomyelitis.....	1	Scarlet fever.....	17
Scarlet fever.....	36	Smallpox:	
Septic sore throat.....	1	Clarksburg.....	12
Smallpox.....	101	Scattering.....	14
Typhoid fever.....	7		
Whooping cough.....	331	WISCONSIN.	
SOUTH DAKOTA.		Milwaukee:	
Chicken pox.....	15	Chicken pox.....	29
Diphtheria.....	16	Diphtheria.....	49
Influenza.....	5	Measles.....	11
Measles.....	69	Scarlet fever.....	55
Pneumonia.....	12	Smallpox.....	17
Scarlet fever.....	28	Tuberculosis.....	27
Smallpox.....	52	Whooping cough.....	16
Trachoma.....	1	Scattering:	
Tuberculosis.....	1	Chicken pox.....	81
Whooping cough.....	4	Diphtheria.....	86
TEXAS.		Influenza.....	43
Chicken pox.....	43	Measles.....	101
Diphtheria.....	29	Ophthalmia neonatorum.....	1
Measles.....	20	Scarlet fever.....	171
		Smallpox.....	300
		Tuberculosis.....	8
		Typhoid fever.....	4
		Whooping cough.....	130

## CURRENT STATE SUMMARIES—Continued.

## District of Columbia and Kentucky Reports for Week Ended Jan. 22, 1921.

DISTRICT OF COLUMBIA.		KENTUCKY—continued.	
	Cases.		Cases.
Chicken pox.....	59	Measles—Continued.	
Diphtheria.....	17	Mason County.....	16
Influenza.....	2	Scattering.....	26
Measles.....	32	Mumps.....	11
Scarlet fever.....	32	Pneumonia.....	71
Tuberculosis.....	22	Polio-myelitis:	
Typhoid fever.....	11	Henry County.....	1
Whooping cough.....	33	Scabies.....	2
KENTUCKY.		Scarlet fever:	
Cerebrospinal meningitis.		Jefferson County.....	21
Jefferson County.....	1	Kenton County.....	10
Chicken pox.....	55	Scattering.....	29
Diphtheria:		Septic sore throat.....	2
Henry County.....	11	Smallpox:	
Jefferson County.....	25	Hopkins County.....	14
Scattering.....	41	Scattering.....	68
German measles.....	3	Tonsillitis.....	15
Influenza.....	40	Trachoma.....	3
Malaria.....	2	Tuberculosis.....	11
Measles:		Typhoid fever:	
Boyd County.....	66	Pike County.....	8
Harlan County.....	14	Scattering.....	12
Lawrence County.....	18	Whooping cough.....	25

## SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Polio-myelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1920.										
Alabama (December).....	3	92	13		27	2		52	103	44
Arizona (December).....		9	8		5			22	7	
Hawaii (December).....		7	537		54			1	75	10
Idaho (October).....		33	1		18			14		12
Idaho (November).....		29	3		21		1	69	267	32
Idaho (December).....		26	2		48		1	34	153	35
Illinois (December).....	8	2,275	443	84	1,832		16	2,560	1,291	105
Iowa (December).....	4	203	7		56			468	811	
New York (December).....	27	3,582	309		4,782		15	2,651	13	189
North Carolina (December).....	4	332			423		1	159	156	44
North Dakota (December).....		73	12		91			82	186	15
Ohio (August).....	12	380	11	3	234		10	548	284	332
Ohio (December).....	21	1,424	99		471		6	1,808	1,211	179
Oregon (December).....		50	9		243		1	90	131	8
South Carolina (December).....	4	268	6	30	152	6		9	197	4
Washington (December).....		147	39		224			206	534	25

PLAGUE.<sup>1</sup>

## HUMAN CASES OF PLAGUE REPORTED.

Place.	Period covered.	Cases.	Deaths.	Remarks.
Florida:	1921.			
Pensacola.....	Jan. 1 to 29.....	0	0	
Louisiana:	do.....	0	0	
New Orleans.....	do.....	0	0	
Texas:	do.....	0	0	
Beaumont.....	do.....	0	0	
Galveston.....	do.....	0	0	

## PLAGUE-INFECTED RODENTS.

Place.	Period covered.	Rodents found plague infected.
Florida:	1921.	
Pensacola.....	Jan. 1 to 22.....	1
	Jan. 23 to 29.....	0
Louisiana:	Jan. 1 to 22.....	10
New Orleans.....	Jan. 23 to 29.....	2
Texas:	Jan. 1 to 29.....	0
Beaumont.....	do.....	0
Galveston.....	do.....	0

<sup>1</sup> A summary of the reports received of the occurrence of plague and the finding of plague-infected rodents in the United States during 1920 was published in Public Health Reports, Jan. 7, 1921, p. 13.

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921.

## ANTHRAX.

Place.	Cases.	Deaths.
Ohio:		
Newark.....	1	1

## CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	Week ended Jan. 15, 1921.		Place.	Median for previous years.	Week ended Jan. 15, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Connecticut:				Montana:			
Meriden.....		1	1	Billings.....	0	1	1
New Haven.....	0	1		New Jersey:			
Waterbury.....	0	1		Jersey City.....	0	1	
Illinois:				Newark.....	1	2	1
Chicago.....	4	3		Rahway.....	0	1	
Freeport.....	0	1		New York:			
Louisiana:				Buffalo.....	0		1
Alexandria.....	0		1	New York.....	4	9	5
Massachusetts:				Saratoga Springs.....	0	1	1
Lawrence.....	0	1	1	Ohio:			
New Bedford.....	6	2	1	Hamilton.....			1
Peabody.....		1		Lorain.....	0	1	1
Michigan:				Pennsylvania:			
Detroit.....	0	2		Philadelphia.....	2	1	1
Flint.....	0		1	Rhode Island:			
Ironwood.....	0	1		Providence.....	0		1
Minnesota:				South Dakota:			
St. Paul.....	0		2	Sioux Falls.....	0		1
Missouri:				Virginia:			
Kansas City.....	0	1	1	Norfolk.....	0	1	



## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## DIPHTHERIA.

See p. 193; also Telegraphic weekly reports from States, p. 181, and Monthly summaries by States, p. 185.

## INFLUENZA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Michigan:		
Birmingham.....		4	Battle Creek.....	1	
Mobile.....		2	Detroit.....	1	3
California:			Grand Rapids.....	1	
Berkeley.....	1		Missouri:		
Long Beach.....	1		Kansas City.....	2	
Los Angeles.....	2		St. Louis.....	7	
Oakland.....	1		Montana:		
San Francisco.....	10		Billings.....	1	
Connecticut:			Missoula.....	2	
Hartford.....	1		New Jersey:		
New Britain.....	7		Jersey City.....	1	
Georgia:			Newark.....	10	1
Atlanta.....	7		Phillipsburg.....		1
Brunswick.....	2		New York:		
Savannah.....	3	2	Albany.....	11	
Illinois:			Binghamton.....	3	1
Chicago.....	18	4	Buffalo.....	2	1
Danville.....	1		Jamestown.....	3	
Indiana:			Mount Vernon.....	2	
Marion.....		1	New York.....	78	15
Richmond.....		1	Niagara Falls.....	1	
Terre Haute.....		1	Saratoga Springs.....	7	
Kentucky:			Ohio:		
Covington.....	2		Cincinnati.....	3	2
Louisiana:			Cleveland.....	3	3
New Orleans.....	1		Columbus.....		1
Maine:			Pennsylvania:		
Biddeford.....	5		Philadelphia.....	7	1
Maryland:			Tennessee:		
Baltimore.....	34		Nashville.....		2
Cumberland.....	2		Texas:		
Massachusetts:			Dallas.....	2	
Boston.....	9	1	El Paso.....		1
Cambridge.....	4		Virginia:		
Haverhill.....	1		Roanoke.....	6	
Lowell.....		1	Wisconsin:		
North Adams.....	3		Appleton.....	3	
Somerville.....	1		Milwaukee.....	1	
Waltham.....	1		Wausau.....	2	
Worcester.....	1	1			

## LETHARGIC ENCEPHALITIS.

Michigan:			Oregon:		
Pontiac.....	1		Portland.....	2	

## MALARIA.

Alabama:			Louisiana:		
Tuscaloosa.....	1		Alexandria.....	8	
California:			Massachusetts:		
Sacramento.....	1		Boston.....	1	
Georgia:			Texas:		
Brunswick.....	1		Dallas.....	3	2

## MEASLES.

See p. 193; also Telegraphic weekly reports from States, p. 181, and Monthly summaries by States, p. 185.

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## PELLAGRA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Texas:		
Birmingham.....		1	Waco.....	1	.....
Massachusetts:					
Danvers.....	1	.....			

## PNEUMONIA (ALL FORMS).

Alabama:			Kansas:		
Birmingham.....		10	Kansas City.....	3	.....
Mobile.....		3	Parsons.....		1
Montgomery.....		5	Salina.....	1	.....
Arkansas:			Topeka.....		1
Hot Springs.....		2	Wichita.....		6
Little Rock.....	2	.....	Kentucky:		
California:			Covington.....		2
Alameda.....	3	3	Lexington.....	2	1
Berkeley.....		2	Louisville.....	8	4
Long Beach.....	4	.....	Louisiana:		
Los Angeles.....	52	19	Alexandria.....		1
Oakland.....	5	3	New Orleans.....		18
Pasadena.....	3	2	Maine:		
Riverside.....	1	1	Auburn.....		3
Sacramento.....	3	2	Biddeford.....		1
San Bernardino.....		1	Portland.....		1
San Diego.....	5	5	Sanford.....	1	.....
San Francisco.....	19	5	Maryland:		
Colorado:			Baltimore.....	61	20
Colorado Springs.....	1	.....	Cumberland.....	3	2
Denver.....		22	Massachusetts:		
Pueblo.....		2	Attleboro.....	1	.....
Connecticut:			Boston.....	28	22
Bridgeport.....	5	4	Cambridge.....	9	5
Bristol.....	1	1	Chelsea.....		3
Hartford.....	6	.....	Clinton.....	2	.....
Meriden.....	6	2	Easthampton.....	1	.....
New Britain.....	3	1	Fall River.....		5
New Haven.....		7	Gardner.....	1	.....
New London.....	2	2	Greenfield.....		1
Norwalk.....		1	Haverhill.....	3	1
Waterbury.....	3	3	Holyoke.....		4
Delaware:			Lawrence.....	3	2
Wilmington.....		8	Leominster.....		1
District of Columbia:			Lowell.....		5
Washington.....		22	Lynn.....		2
Georgia:			Malden.....	7	3
Atlanta.....		8	Medford.....	3	2
Rome.....	3	.....	Melrose.....		1
Savannah.....		3	New Bedford.....		8
Illinois:			Newton.....	4	2
Aurora.....	5	3	Peabody.....		2
Chicago.....	253	75	Pittsfield.....		3
Danville.....	1	.....	Plymouth.....		1
Decatur.....		2	Salem.....		1
Elgin.....		1	Saugus.....	1	.....
Evanston.....	1	.....	Somerville.....	6	1
Freeport.....		1	Southbridge.....	5	4
Galesburg.....		4	Springfield.....	7	2
Kewanee.....		2	Taunton.....	2	1
Oak Park.....	3	1	Waltham.....	2	1
Peoria.....		3	Watertown.....	2	.....
Rock Island.....	3	3	Winthrop.....		1
Springfield.....		5	Worcester.....	7	6
Indiana:			Michigan:		
Bloomington.....		2	Battle Creek.....	1	.....
East Chicago.....		2	Detroit.....	57	22
Elkhart.....		1	Flint.....	4	1
Fort Wayne.....		2	Grand Rapids.....	13	5
Gary.....		4	Highland Park.....	2	1
Hammond.....		1	Ishpeming.....	1	.....
Indianapolis.....	12	.....	Kalamazoo.....	5	4
Kokomo.....		2	Marquette.....	6	.....
Marion.....		5	Muskegon.....	3	2
South Bend.....		6	Pontiac.....	3	.....
Terre Haute.....		3	Port Huron.....	2	.....
Iowa:			Saginaw.....		1
Burlington.....		1	Minnesota:		
Muscatine.....		2	Duluth.....	2	1

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## PNEUMONIA (ALL FORMS)—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Minnesota—Continued.			North Carolina:		
Hibbing.....	1		Charlotte.....		1
Minneapolis.....		14	Greensboro.....		2
St. Paul.....		5	Wilmington.....		4
Missouri:			Winston-Salem.....		2
Cape Girardeau.....		1	Ohio:		
Independence.....	1		Barberton.....	1	
Jefferson City.....		1	Canton.....		1
Kansas City.....	20	17	Chillicothe.....		2
St. Joseph.....		6	Cincinnati.....		14
Springfield.....		2	Cleveland.....	29	19
Montana:			Columbus.....		7
Butte.....		4	Dayton.....	1	
Great Falls.....	2		Hamilton.....		2
Nebraska:			Lancaster.....	1	
Lincoln.....	4	1	Lima.....		1
Omaha.....		7	Mansfield.....		2
Nevada:			Middletown.....		1
Reno.....		1	Newark.....		2
New Hampshire:			Norwood.....		1
Concord.....		1	Springfield.....		2
Keene.....		1	Steubenville.....	1	
New Jersey:			Toledo.....		3
Atlantic City.....	3	1	Youngstown.....		5
Belleville.....	3		Zanesville.....		1
East Orange.....	3		Oklahoma:		
Elizabeth.....		3	Oklahoma City.....		5
Englewood.....		1	Oregon:		
Houcouster City.....	1		Portland.....		5
Hockensack.....	4	1	Pennsylvania:		
Hoboken.....		3	Philadelphia.....	133	82
Irington.....	1		Rhode Island:		
Jersey City.....	10		Cranston.....	2	
Keamy.....		1	Pawtucket.....		4
Montclair.....	2		Providence.....		6
Morristown.....		2	South Carolina:		
Newark.....	70	13	Charleston.....		2
Orange.....	12	1	South Dakota:		
Passaic.....		2	Sioux Falls.....		1
Paterson.....	3		Tennessee:		
Plainfield.....		1	Memphis.....		3
Trenton.....	7	2	Nashville.....		6
Union.....	1		Texas:		
New York:			Dallas.....	11	5
Albany.....	10		El Paso.....		9
Binghamton.....	11	3	Galveston.....		1
Buffalo.....	63	17	Waco.....		2
Cohoes.....	6	1	Utah:		
Elmira.....	25	7	Salt Lake City.....		12
Geneva.....		1	Vermont:		
Glens Falls.....	2		Burlington.....		1
Hudson.....	1		Virginia:		
Jamestown.....	1		Alexandria.....	3	
Lockport.....		2	Lynchburg.....		2
Mount Vernon.....	6	2	Petersburg.....		1
Newburgh.....		1	Richmond.....		5
New York.....	341	201	Roanoke.....		3
Niagara Falls.....	1		West Virginia:		
Olean.....	1	1	Charleston.....		1
Peekskill.....		3	Huntington.....		2
Port Chester.....	1		Wheeling.....		1
Rochester.....	11	3	Wisconsin:		
Rome.....	2		Beloit.....		2
Saratoga Springs.....	3		Fond du Lac.....	1	
Schenectady.....	4	3	Janesville.....		2
Syracuse.....	10	8	Kenosha.....		1
Troy.....	15	5	Madison.....		3
White Plains.....	5		Oshkosh.....		1
Yonkers.....	9	6	Wausau.....		1

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	Week ended Jan. 15, 1921.		Place.	Median for previous years.	Week ended Jan. 15, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Arkansas:				Minnesota:			
Hot Springs .....			2	St. Paul .....	0	1	
Massachusetts:				New York:			
Boston .....	0	2		New York .....	0	1	

## RABIES IN ANIMALS.

Place.	Cases.	Place.	Cases.
Ohio:		Virginia:	
Cincinnati .....	1	Petersburg .....	1

## SCARLET FEVER.

See p. 193; also Telegraphic weekly reports from States, p. 181, and Monthly summaries by States, p. 185.

## SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	Week ended Jan. 15, 1921.		Place.	Median for previous years.	Week ended Jan. 15, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Indiana:			
Birmingham .....	1	7		Bloomington .....	0	2	
Mobile .....	0	5		Crawfordsville .....		4	
Montgomery .....	0	7		Elkhart .....	0	1	
Arkansas:				Evansville .....	6	1	
Hot Springs .....	2	1		Fort Wayne .....	0	5	
California:				Frankfort .....		5	
Long Beach .....	1	2		Hammond .....	12	3	
Los Angeles .....	1	12		Indianapolis .....	1	12	
Oakland .....	0	8		La Fayette .....	0	4	
Sacramento .....	0	18		Logansport .....	8	3	
San Diego .....	0	3		Marion .....	0	20	1
San Francisco .....	0	30		Mishawaka .....	0	10	
Colorado:				Richmond .....	0	2	
Colorado Springs .....	1	1		South Bend .....	0	18	
Denver .....	7	12		Terre Haute .....	0	5	
Pueblo .....	2	1					
District of Columbia:				Iowa:			
Washington .....	0	1		Cedar Rapids .....	5	10	
Georgia:				Council Bluffs .....	2	2	
Atlanta .....	3	34		Davenport .....	1	4	
Rome .....	1	1		Des Moines .....	3	7	
Idaho:				Dubuque .....	0	26	
Boise .....	3	3		Iowa City .....	0	1	
Illinois:				Marshalltown .....	5	2	
Aurora .....	0	1		Mason City .....	2	2	
Bloomington .....	0	5		Sioux City .....	6	38	
Centralia .....	0	1					
Chicago .....	1	13		Kansas:			
Danville .....	1	1		Hutchinson .....	0	2	
Elgin .....	0	1		Kansas City .....	1	2	
Galesburg .....	0	1		Lawrence .....	0	1	
Kewanee .....	0	1		Parsons .....	0	1	
Rock Island .....	2	4		Topeka .....	0	1	
				Wichita .....	3	4	

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## SMALLPOX—Continued.

Place.	Median for pre- vious years.	Week ended Jan. 15, 1921.		Place.	Median for pre- vious years.	Week ended Jan. 15, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Kentucky:				Ohio—Continued.			
Lexington.....	0	2		Columbus.....	0	1	
Louisiana:				Dayton.....	0	2	
Lake Charles.....		1		Hamilton.....		2	
New Orleans.....	2	32	3	Lima.....		9	
Maine:				Lorain.....	0	14	
Waterville.....		3		Middletown.....	1	3	
Michigan:				Newark.....	3	1	
Ann Arbor.....	0	2		Springfield.....	0	1	
Battle Creek.....	1	19		Toledo.....	4	10	
Detroit.....	5	44	1	Oklahoma:			
Flint.....	4	4		Muskogee.....	0	1	
Ironwood.....	1	2		Oklahoma City.....	2	4	
Kalamazoo.....	0	1		Tulsa.....		3	
Muskegon.....		2		Oregon:			
Port Huron.....	0	4		Portland.....	3	25	
Sault Ste. Marie.....	0	4		South Carolina:			
Minnesota:				Charleston.....	0	18	
Duluth.....	1	15		South Dakota:			
Hibbing.....	0	2		Sioux Falls.....	3	2	
Mankato.....	1	2		Tennessee:			
Minneapolis.....	14	194		Memphis.....	0	1	
St. Paul.....	10	81		Nashville.....	0	4	
Missouri:				Texas:			
Kansas City.....	5	12		Corpus Christi.....	0	1	
St. Joseph.....	11	1		Dallas.....	21	5	
St. Louis.....	3	25		El Paso.....	0	2	
Montana:				Fort Worth.....	2	3	
Great Falls.....	1	1		Utah:			
Missoula.....	0	2		Salt Lake City.....	2	21	
Nebraska:				West Virginia:			
Lincoln.....	1	3		Charleston.....	0	2	
Omaha.....	6	10		Wheeling.....	0	1	
New York:				Wisconsin:			
Binghamton.....	0	1		Appleton.....	1	1	
Niagara Falls.....	0	1		Eau Claire.....	0	1	
North Carolina:				Green Bay.....	0	2	
Durham.....	0	2		Janesville.....	1	1	
Winston-Salem.....	1	9		Kenosha.....	0	2	
North Dakota:				La Crosse.....	0	5	
Fargo.....	0	12		Madison.....	1	3	
Ohio:				Manitowoc.....	0	1	
Akron.....	2	11		Marinette.....	0	3	
Canton.....	0	11		Milwaukee.....	4	19	
Cincinnati.....	2	4		Sheboygan.....	3	24	
Cleveland.....	3	21		Superior.....	2	1	

## TETANUS.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
California:			Maryland:		
Los Angeles.....	1	1	Baltimore.....	1	1
Sacramento.....	1		New Jersey:		
Georgia:			Trenton.....		1
Savannah.....		2	West Virginia:		
Indiana:			Wheeling.....		1
East Chicago.....		1			
Kentucky:					
Covington.....		1			

## TRICHINOSIS.

New Jersey:					
Jersey City.....	1				

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## TUBERCULOSIS.

See p. 193; also Telegraphic weekly reports from States, p. 181.

## TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	Week ended Jan. 15, 1921.		Place.	Median for previous years.	Week ended Jan. 15, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Missouri:			
Birmingham.....	2	1	.....	Independence.....	5	1	.....
California:				St. Joseph.....	0	1	.....
Los Angeles.....	3	1	.....	St. Louis.....	3	1	.....
San Francisco.....	1	2	.....	Nebraska:			
Colorado:				Omaha.....	0	2	.....
Pueblo.....	0	1	.....	Nevada:			
Delaware:				Reno.....	0	1	.....
Wilmington.....	1	4	.....	New Jersey:			
District of Columbia:				Atlantic City.....	0	1	.....
Washington.....	3	4	1	Gloucester City.....	0	1	.....
Georgia:				Jersey City.....	0	1	.....
Atlanta.....	1	2	.....	Newark.....	0	2	1
Savannah.....	0	1	.....	New York:			
Idaho:				Binghamton.....	0	2	.....
Boise.....	0	7	.....	Buffalo.....	2	2	.....
Illinois:				Elmira.....	0	1	1
Chicago.....	8	5	.....	New York.....	15	8	2
Galesburg.....	0	.....	1	Rochester.....	0	1	1
Mattoon.....	1	2	.....	Schenectady.....	0	2	.....
Indiana:				Watertown.....	0	2	.....
Elkhart.....	0	1	.....	Ohio:			
Fort Wayne.....	0	.....	1	Akron.....	0	1	.....
Hammond.....	1	1	1	Cleveland.....	3	5	.....
Mishawaka.....	0	4	.....	Dayton.....	0	1	.....
Richmond.....	0	1	.....	Steubenville.....	0	1	.....
South Bend.....	0	2	.....	Toledo.....	2	.....	1
Terre Haute.....	0	.....	1	Oklahoma:			
Iowa:				Tulsa.....	.....	2	.....
Muscatine.....	0	1	.....	Pennsylvania:			
Kansas:				Beaver Falls.....	1	1	.....
Coffeyville.....	0	1	.....	Carbondale.....	0	2	.....
Topeka.....	0	1	.....	Columbia.....	0	2	.....
Wichita.....	0	1	.....	Philadelphia.....	3	3	.....
Kentucky:				Pittsburgh.....	4	2	.....
Louisville.....	0	1	1	Williamsport.....	0	2	.....
Louisiana:				York.....	1	3	.....
New Orleans.....	2	.....	1	Rhode Island:			
Maine:				Providence.....	0	1	.....
Biddeford.....	0	1	.....	South Carolina:			
Portland.....	0	1	.....	Charleston.....	0	.....	1
Waterville.....	.....	1	.....	Texas:			
Maryland:				Dallas.....	0	1	.....
Baltimore.....	4	1	.....	Vermont:			
Cumberland.....	0	.....	1	Rutland.....	0	2	.....
Massachusetts:				Virginia:			
Brookline.....	0	1	.....	Norfolk.....	0	2	1
Michigan:				Roanoke.....	0	2	.....
Detroit.....	2	1	2	West Virginia:			
Grand Rapids.....	1	1	1	Bluefield.....	0	1	.....
Kalamazoo.....	0	1	.....	Parkersburg.....	0	1	.....
Port Huron.....	0	1	.....	Wisconsin:			
Minnesota:				Milwaukee.....	1	1	.....
Duluth.....	0	1	.....	Racine.....	0	.....	1
St. Paul.....	0	1	.....	Sheboygan.....	1	1	.....
				Superior.....	0	3	.....



## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

Place.	Population Jan. 1, 1920, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Birmingham.....	178, 270	67	4		2		7		8	2
Mobile.....	60, 151	25	1				4			1
Montgomery.....	43, 464	12							3	1
Arizona:										
Tucson.....	20, 292	9								5
Arkansas:										
Fort Smith.....	28, 811		1		2		2			
Hot Springs.....	11, 695	8								
Little Rock.....	64, 997		2		10		2			
North Little Rock.....	14, 048	1			5		2			
California:										
Alameda.....	28, 806	9			4		1		1	1
Berkeley.....	55, 886	12	1				9			
Eureka.....	12, 923	6			2		3		3	
Long Beach.....	55, 593	14	1				1			2
Los Angeles.....	576, 673	101	46	3	124		18		92	15
Oakland.....	216, 361	49	9		5		5		5	2
Pasadena.....	45, 354	20			2					1
Riverside.....	19, 341	8	1	1	18				1	2
Sacramento.....	65, 857	15	3		1		3		6	1
San Bernardino.....	18, 721	5			1					
San Diego.....	74, 683	37	2				2		8	4
San Francisco.....	508, 410	153	23		14		15		27	12
Santa Barbara.....	19, 441	6								
Santa Cruz.....	10, 917	1								
Vallejo.....	21, 107	4								
Colorado:										
Colorado Springs.....	30, 105	26			72				20	9
Denver.....	256, 369	96	22	1	88		10			12
Pueblo.....	42, 908		6	1			3		2	1
Trinidad.....	10, 906				3		2			
Connecticut:										
Bridgeport (town) <sup>1</sup> .....	143, 538	25	9	1	2		10		9	1
Bristol (town) <sup>1</sup> .....	20, 620	6	2				1		6	
Hartford (town) <sup>1</sup> .....	138, 036	29	27		9		13		6	1
Manchester (town) <sup>1</sup> .....	18, 370	2								
Meriden (city) <sup>1</sup> .....	29, 812	5	3				18			2
New Britain (town) <sup>1</sup> .....	59, 316	13			62		4		13	1
New Haven (town) <sup>1</sup> .....	162, 519	43	15	1	2	1	32		7	2
New London (town) <sup>1</sup> .....	25, 688	5					5		1	
Norwalk (town) <sup>1</sup> .....	27, 700	8	5				1			
Norwich (city) <sup>1</sup> .....	22, 304	5					1			1
Waterbury (town) <sup>1</sup> .....	91, 410	12	4		1		10		4	1
Delaware:										
Wilmington.....	110, 168	33	3				7	1		3
District of Columbia:										
Washington.....	437, 571	128	21	1	14		36	1	20	12
Georgia:										
Atlanta.....	200, 616	62	4		26		2		1	3
Brunswick.....	14, 413	3								
Rome.....	13, 252		1							
Savannah.....	83, 252	30	3						2	4
Idaho:										
Boise.....	21, 393	4	1		1		1		1	
Illinois:										
Alton.....	24, 682	9	2							
Aurora.....	36, 397	9			5					
Bloomington.....	28, 725	8	2				12		5	
Centralia.....	12, 491	3					1			
Chicago.....	2, 701, 705	707	266	25	156	2	204	3	227	44
Danville.....	33, 750	4			1		1			
Decatur.....	43, 818	15	10				1			
Elgin.....	27, 454	5	2		20					
Evanston.....	37, 215	10	3		2		1		1	
Freeport.....	19, 669	9	1							2
Galesburg.....	23, 834	9			6					
Jacksonville.....	15, 713	8	2		10		2		1	1
Kewanee.....	16, 026	6	11	1	5		18			
La Salle.....	13, 050	3								
Oak Park.....	39, 830	14	3		5		10		2	
Peoria.....	76, 121	17	4				37		7	
Rock Island.....	35, 177	11	2		1		3	1	1	
Springfield.....	59, 183	19	1		3		51			1

<sup>1</sup>Coextensive with city of same name.

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## DIPHtheria, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1920, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Indiana:										
Bloomington.....	11,595	3	2		2		2		1	
Crawfordsville.....	10,139	3			1		7	1		
East Chicago.....	35,967	13								
Elkhart.....	24,277	8	1				7			1
Evansville.....	85,264	23	7				1			
Fort Wayne.....	86,549	23	5		4		2		1	
Frankfort.....	11,585	0	1				2			
Gary.....	55,378	15	2				3	1		2
Hammond.....	36,004	12	2	1			5			
Huntington.....	14,000	4			2		8			
Indianapolis.....	314,194	81	6		13		70		14	8
Kokomo.....	30,067	6					2			
La Fayette.....	22,486	1	1		1		4			
Logansport.....	21,626	4					2			
Marion.....	23,747	15	1				6			
Mishawaka.....	15,195	4								
Muncie.....	36,624	7			9		7			2
Richmond.....	26,765	11					3			
South Bend.....	70,983	11	5				11		3	
Terre Haute.....	66,083	19	4		1		4			
Iowa:										
Burlington.....	24,057	12	1		1				3	3
Cedar Rapids.....	45,566		4	1			2			
Council Bluffs.....	36,162	4			1		7			
Davenport.....	56,727						3			
Des Moines.....	126,468		6				12			
Dubuque.....	39,141		5	1	2		4			
Iowa City.....	11,267		1				1			
Keokuk.....	14,423	5			4				1	
Mason City.....	20,065	11					4			
Muscatine.....	16,068	10		1						
Sioux City.....	71,227						3			
Kansas:										
Atchison.....	12,630		4				2			
Colleyville.....	13,452	2	3		1		1			
Fort Scott.....	10,693	2	5				2		2	1
Hutchinson.....	23,298		1		6		1			
Kansas City.....	101,177		10				2		11	
Lawrence.....	12,456	3			1					
Leavenworth.....	16,912	6	6				2		1	1
Parsons.....	16,028	4	2				1		1	
Salina.....	15,085	4	5		8		1		1	
Topeka.....	50,022	15	2		60	1	5		5	
Wichita.....	72,128	24	13				10		1	
Kentucky:										
Covington.....	57,121	19					5			4
Lexington.....	41,534	16					1		1	3
Louisville.....	234,891	61	12	1	3		19		4	2
Paducah.....	24,735		7				2			
Louisiana:										
Alexandria.....	17,510	5	2		1					
Lake Charles.....	13,088	3								
New Orleans.....	387,219	123	10		106	1	7		19	15
Maine:										
Auburn.....	16,985	8	1		33					1
Bangor.....	25,978				3		4		2	
Biddeford.....	18,008		3		2					
Lewiston.....	31,791	8	4		10					
Portland.....	69,272	19	4				2			2
Sanford.....	10,691	7	2		2					1
Waterville.....	13,351						2			
Maryland:										
Baltimore.....	733,826	207	51	4	32		27		23	28
Cumberland.....	29,837	17					2		1	1
Massachusetts:										
Adams.....	12,967	0							1	
Arlington.....	18,665	6								1
Attleboro.....	19,731	2	1				1		2	
Beverly.....	22,561	5	1				2			
Boston.....	748,060	198	96	4	58		55		4	19
Brookline.....	37,748	7			3		5		3	
Cambridge.....	109,694	22	5		11		7		4	

**CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.**

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1927, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culpsis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Massachusetts—Continued.										
Chelsea.....	43,184	13	5		5		4		2	
Chicopee.....	36,214	2								
Clinton.....	12,979	5	1		5		1			
Dedham.....	10,792	2	1							
Easthampton.....	11,261		2		2					
Everett.....	40,120	4			1				1	
Fall River.....	120,485	24	12		27		4		1	2
Gardner.....	16,971	2					1		1	
Greenfield.....	15,462	4					5			1
Haverhill.....	53,884	15	13	2					1	
Holyoke.....	60,203	20	1	1			4			1
Lawrence.....	91,270	25	1		8		5		2	1
Leominster.....	19,744	6								
Lowell.....	112,479	40	13	2	70	2			2	2
Lynn.....	92,148	21	14	2	11		6		3	
Malden.....	49,103	9	3		1		7			1
Medford.....	39,038	6			1		2			
Melrose.....	18,204	6					1			
Methuen.....	15,189	2					9			
New Bedford.....	121,217	28	5		1		1		8	3
Newburyport.....	15,618	4			2		3			
Newton.....	46,054	7	1		15		1		1	
North Adams.....	22,282	12								
Northampton.....	21,951	6	1		1		1		1	
Peabody.....	19,552	8			2		2	1	5	1
Pittsfield.....	41,751	13			35		4		2	2
Plymouth.....	13,045	2								
Quincy.....	47,876	5					3			1
Salem.....	42,529	8					2	1	4	1
Saugus.....	10,874				1		3			
Somerville.....	93,061	32	8		2		9		8	5
Southbridge.....	14,245	10					1			
Springfield.....	129,563	31	9	2			16		7	2
Taunton.....	37,137	14	1		3		3		5	2
Wakefield.....	13,025	2								
Waltham.....	30,915	10							1	
Watertown.....	21,457	3							1	2
Westfield.....	18,604	2								
Winthrop.....	15,455	3								
Woburn.....	16,574	3								
Worcester.....	179,754	50	3		15		16		3	4
Michigan:										
Ann Arbor.....	19,516	13	2							
Battle Creek.....	35,164		6	1			6			
Detroit.....	993,739	199	133	7	16		9			
Flint.....	91,599	21	5				112		43	18
Grand Rapids.....	137,634	53	8	2	1		14		2	
Highland Park.....	46,499	8					13		6	
Holland.....	12,166	1					5		1	1
Ironwood.....	15,739	1					1			
Ishpeming.....	10,500	1	1		12		2			
Kalamazoo.....	48,858	23	1							
Marquette.....	12,718	3					13		2	2
Muskegon.....	36,570	12	2	1	1		1			
Pontiac.....	31,273	8					4		1	2
Port Huron.....	25,944	11	5				5			
Saginaw.....	61,903	20	16		2		4	2	1	
Sault Ste. Marie.....	12,006	3			2		1			1
Minnesota:										
Duluth.....	98,917	18	4			1	2		2	3
Hibbing.....	15,089		1				1			
Mankato.....	12,469	10					1			
Minneapolis.....	380,582	90	13		3		67	1	23	6
St. Paul.....	231,595	55	16		3		21		14	7
Missouri:										
Cape Girardeau.....	10,252	5	4							
Independence.....	11,686	8	7				1			
Jefferson City.....	14,490	4								
Joplin.....	29,855		2				1			
Kansas City.....	324,410	119	24		39		11		6	9
St. Joseph.....	77,939	31	4	1			4			2
St. Louis.....	772,897	201	152	3	5		61	1	31	11
Springfield.....	39,631	12								

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place	Popula- tion Jan. 1, 1920, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Montana:										
Anaconda.....	11,668	7					1			1
Billings.....	15,100	6	1		18		2		3	
Butte.....	41,611	16	1		1					2
Great Falls.....	24,121	8			38					
Missoula.....	12,668	1			1					
Nebraska:										
Lincoln.....	54,934	18	4				5			1
Omaha.....	191,601	42	4		2		8	1		2
Nevada:										
Reno.....	12,016	5								
New Hampshire:										
Berlin.....	16,104	1					3			
Concord.....	22,167	11							2	
Dover.....	13,029	4	1		15				1	
Kennebunk.....	11,210	7			1					1
Manchester.....	78,384	19	14				5		7	1
New Jersey:										
Asbury Park.....	12,400	2								
Atlantic City.....	50,682	9					5			1
Bayonne.....	76,754		9				11		3	
Belleville.....	15,660		1							
Bloomfield.....	22,019	1					2			
East Orange.....	50,710	9	8				11		2	
Elizabeth.....	96,682	10					11		3	1
Englewood.....	11,627	6	1						1	
Garfield.....	19,381		4				1			
Hackensack.....	17,667	5	5							1
Harrison.....	15,721	1								
Hoboken.....	68,166	18	4		1		3		2	2
Irvington.....	25,480	2								
Jersey City.....	297,864	22	5		5		15		8	
Kearny.....	26,724	4	5				2		1	1
Montclair.....	28,810	6			3		1			
Morristown.....	12,548	14			2				2	1
New Brunswick.....	32,779		9				1			
Newark.....	414,216	113	39	2	27	1	61	1	31	14
Orange.....	33,268	7	5		1				4	1
Passaic.....	63,824	15	4		5		5		2	1
Paterson.....	135,866		11				6		6	
Perth Amboy.....	41,707	8	5				4		3	
Phillipsburg.....	16,923	3								
Plainfield.....	27,700	8	1	1			4		2	
Rahway.....	11,042	2	1							
Trenton.....	119,289	34	8		1		7		4	1
Union.....	29,651		1						3	
West Hoboken.....	40,068	2					1		1	
West New York.....	29,926	4	2				2			
New York:										
Albany.....	113,344		2		29				3	
Binghamton.....	66,800	12	2		119		5			
Buffalo.....	506,775	123	76	5	118	1	26		31	8
Cohoes.....	22,987	9	1		3				1	
Elmira.....	45,305	21	2		2					
Geneva.....	14,648	5								1
Glens Falls.....	16,638	8			7					
Hudson.....	11,745	4	1				1		2	
Ithaca.....	17,094	4			6				1	
Jamestown.....	38,917	10	4				10			1
Lockport.....	21,308	7	2		1		2			
Middletown.....	18,420		1		17		2		1	
Mount Vernon.....	42,726	13	2		1		1			
Newburgh.....	30,366	12	2				2			
New York.....	5,621,151	1,396	479	24	99	3	522	16	171	101
Niagara Falls.....	50,700	12	6	2	13		23		1	
North Tonawanda.....	15,482	0	2		3		1			
Ogdensburg.....	14,609	3								
Olean.....	20,506	6	1		7					
Pekskill.....	15,898	5			10				1	
Plattsburg.....	10,909	4								
Port Chester.....	16,573	5	1		7		5			1
Rochester.....	285,750	71	41				36	3	11	4
Rome.....	26,341		1		6					
Saratoga Springs.....	13,181	4			10					1

\*Pulmonary tuberculosis only.

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Popula- tion Jan. 1, 1920, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
New York—Continued.											
Schenectady.....	88,723	19	3		12				2	1	
Syracuse.....	171,717	47	12	1	43		35		2	1	
Troy.....	72,013	21			195	1	2		2		
Watertown.....	31,285		1	1			7	2			
White Plains.....	21,031	7					1		1		
Yonkers.....	100,226	24	3		1		7			2	
North Carolina:											
Charlotte.....	46,338	10			70					1	
Durham.....	21,719	6	1							1	
Greensboro.....	19,861	5									
Rocky Mount.....	12,742	5								1	
Wilmington.....	33,372	12	3		5		1		1		
Winston-Salem.....	48,395	11	4	1	61				1		
North Dakota:											
Fargo.....	21,961	11					1				
Ohio:											
Akron.....	208,435	40	4		4		11				
Alliance.....	21,003	7	4	1	1		7			1	
Barberton.....	18,811	6	1						1		
Canton.....	87,091	14	8		3		6	1	1		
Chillicothe.....	15,831	5			4		3		1	1	
Cincinnati.....	401,217	116	36	5	4		37		14	8	
Cleveland.....	796,836		42	4	25	2	86	3	36	13	
Columbus.....	237,031	67	5	1	2		7		4	3	
Dayton.....	152,559	42	8		1		6		6		
East Cleveland.....	27,292								1		
Findlay.....	17,021	3									
Fremont.....	12,418	3					8				
Hamilton.....	39,675	11	1				14				
Ironton.....	14,007	4			2		19		1	1	
Leicester.....	14,706	4	1		1				1		
Lima.....	41,396	9	1		1					1	
Lorain.....	37,235		2		3		1		2		
Mansfield.....	27,821	7					1				
Marion.....	27,801		2								
Middletown.....	23,594	8	2	1			2				
Newark.....	26,718	9					3		2		
Norwood.....	24,966	6					1			1	
Piqua.....	15,044	2									
Sandusky.....	22,837	8	1								
Springfield.....	60,840	10	2		3		8			1	
Steuensville.....	28,508	13			2		2		1		
Toledo.....	213,106	70	32	5	1		20	1	1	6	
Youngstown.....	132,358	31	9	1	16		18	2	2	2	
Zanesville.....	29,569	13	2				1				
Oklahoma:											
Muskogee.....	30,277		1		1		2				
Oklahoma City.....	91,258	24	2		1		3			1	
Tulsa.....	72,075		12		5		4				
Oregon:											
Portland.....	258,288	63	23	1	75		8		8	2	
Pennsylvania:											
Allentown.....	73,502		11		52		7		2		
Altoona.....	60,331		3		1						
Ambridge.....	12,730								1		
Beaver Falls.....	12,892		3		3						
Berwick.....	12,181				1		3				
Bethlehem.....	50,358		8		6		45				
Bradford.....	20,879		1		2		3				
Bradford.....	15,525				19						
Bristol.....	10,273						7				
Butler.....	23,778		2		2		6				
Carbondale.....	18,610		3				1				
Carlisle.....	10,916						1				
Carnegie.....	11,516		2		2				1		
Carriek.....	10,501						1				
Chambersburg.....	13,171		1		1						
Charleroi.....	11,516				1		2				
Chester.....	58,030		5				3		1		
Coatesville.....	14,515		1				20				
Columbia.....	10,836		1				1				
Connellsville.....	13,804		1				2		1		
Donora.....	14,131				1		1				
Dubois.....	13,681				1		1		1		

## CITY REPORTS FOR WEEK ENDED JAN. 15, 1921—Continued.

## DIPHtheria, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Popula- tion Jan. 1, 1920, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Pennsylvania—Continued.										
Easton.....	33,813		1		5		10			
Erie.....	93,372		11		16		23		8	
Farrell.....	15,583		1							
Greensburg.....	15,033				3		1			
Harrisburg.....	75,917		3		6		5			
Hazleton.....	32,277		2				3			
Jeanette.....	10,627				2		2		1	
Johnstown.....	67,327		9		2		3			
Lancaster.....	53,150		11				4		2	
Lebanon.....	24,643		2				2			
McKeesport.....	45,975		4							
McKees Rocks.....	16,713				4		1			
Mahanoy City.....	15,599		3							
Meadville.....	14,508				1		14			
Monessen.....	18,179				1					
Mount Carmel.....	17,469		1		7					
Nanticoke.....	22,614		1		9		2			
New Castle.....	44,938		2				2		1	
North Braddock.....	14,928		3		2					
Oil City.....	21,274		6		13		1			
Old Forge.....	12,237						1			
Olyphant.....	10,236								2	
Philadelphia.....	1,823,138	499	97	10	27	1	229	2	81	51
Phoenixville.....	10,484		1				6			
Pittsburgh.....	588,193		46		38		90			
Pittston.....	18,497		1							
Plymouth.....	16,500		1				2			
Pottstown.....	17,431		2		1		3		1	
Pottsville.....	21,876		1							
Punxsutawney.....	10,311				19		1			
Reading.....	107,781		9				4			
Seranton.....	137,783		4		5		11			
Shamokin.....	21,204				1		1			
Sharon.....	21,747		3		1		1			
Swissvale.....	10,908		1				2			
Tamaqua.....	12,363		1				7			
Uniontown.....	15,692						5			
Washington.....	21,480		1		9		1			
Wilkes-Barre.....	73,833		10		28		12		4	
Wilkinsburg.....	24,403		2		6				3	
Williamsport.....	36,198		3		1		15			
Woodlawn.....	12,495				4					
York.....	47,512		11				2			
Rhode Island:										
Cranston.....	29,407	7	1				2	1		
Newport.....	30,255	4					3			
Pawtucket.....	64,248	14	4	1			2			
Providence.....	237,595	62	17	2	43		12			6
South Carolina:										
Charleston.....	67,957	17					1			4
Columbia.....	37,524		1		5		1			
South Dakota:										
Sioux Falls.....	25,176	7	1				8			
Tennessee:										
Memphis.....	162,351	36	17		1		3		11	5
Nashville.....	118,342	39	4				5			2
Texas:										
Corpus Christi.....	10,522	4			1					
Dallas.....	158,976	34	6		4		4		4	2
El Paso.....	77,543	48	1		2					11
Fort Worth.....	106,482	17	1							1
Galveston.....	44,255	9	3	1			2			1
Waco.....	38,500	10	2							1
Utah:										
Salt Lake City.....	118,110	34	3	2	256	1	8			
Vermont:										
Burlington.....	22,779	9	2				2			
Rutland.....	14,954	3								
Virginia:										
Alexandria.....	18,060	3			1				1	1
Danville.....	21,539		2							1
Lynchburg.....	29,956	6	2				2	1		
Norfolk.....	115,777		1		48		1		3	1



**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.**

Place.	Population Jan. 1, 1920, subject to cor- rection.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Virginia—Continued.										
Petersburg.....	31,002	14	1	.....	.....	.....	.....	.....	8	2
Richmond.....	171,667	47	10	.....	4	.....	5	1	.....	5
Roanoke.....	50,812	15	4	1	17	.....	.....	.....	.....	.....
West Virginia:										
Bluefield.....	15,282	1	.....	.....	10	.....	3	.....	.....	.....
Charleston.....	39,608	9	2	.....	139	.....	1	.....	.....	2
Fairmont.....	17,851	.....	4	.....	.....	.....	2	.....	.....	.....
Huntington.....	50,177	14	3	.....	.....	.....	2	.....	.....	3
Martinsburg.....	12,515	.....	1	.....	.....	.....	.....	.....	.....	.....
Morgantown.....	12,127	1	.....	.....	2	.....	.....	.....	.....	.....
Moundsville.....	10,669	4	.....	.....	1	.....	2	.....	.....	.....
Parkersburg.....	20,050	6	.....	.....	.....	.....	.....	.....	.....	.....
Wheeling.....	54,322	18	12	.....	9	.....	4	.....	.....	1
Wisconsin:										
Appleton.....	19,561	.....	.....	.....	.....	.....	4	.....	.....	.....
Beloit.....	21,284	4	2	.....	.....	.....	1	.....	1	.....
Eau Claire.....	20,880	.....	.....	.....	.....	.....	1	.....	.....	.....
Fond du Lac.....	23,427	5	4	.....	.....	.....	.....	.....	.....	.....
Green Bay.....	31,017	11	3	.....	.....	.....	1	.....	.....	.....
Janesville.....	18,293	3	.....	.....	1	.....	.....	.....	1	.....
Kenosha.....	40,472	7	.....	.....	.....	.....	3	.....	.....	.....
La Crosse.....	30,363	.....	3	.....	1	.....	4	.....	.....	.....
Madison.....	38,378	5	1	.....	.....	.....	6	.....	.....	.....
Manitowoc.....	17,593	.....	.....	.....	.....	.....	1	.....	.....	.....
Milwaukee.....	457,147	.....	34	.....	20	.....	62	.....	10	.....
Oshkosh.....	33,162	9	.....	.....	.....	.....	2	.....	.....	.....
Racine.....	38,593	7	29	.....	2	.....	7	.....	2	1
Sheboygan.....	30,955	.....	.....	.....	.....	.....	1	.....	1	.....
Superior.....	39,624	5	3	.....	1	.....	.....	.....	3	1
Wausau.....	18,661	8	.....	.....	.....	.....	4	.....	.....	.....

## FOREIGN AND INSULAR.

### CHINA.

#### Plague—Manchuria—Chinese Eastern Railway.

Plague was reported present, February 2, 1921, in Manchuria, China, at Harbin, Manchuria Station, Tsitsihar, and other stations on the line of the Chinese Eastern Railway. At Harbin, two cases of plague were reported; at Manchuria Station, 203 fatal cases were reported.

### CUBA.

#### Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Jan. 1-10, 1921.		Remain- ing under treatment Jan. 10, 1921.	Disease.	Jan. 1-10, 1921.		Remain- ing under treatment Jan. 10, 1921.
	Cases.	Deaths.			Cases.	Deaths.	
Chicken pox. ....	4	.....	9	Measles. ....	8	1	20
Diphtheria. ....	1	1	2	Scarlet fever. ....	1	.....	1
Leprosy. ....	.....	.....	12	Smallpox. ....	5	.....	6
Malaria. ....	89	2	130	Typhoid fever. ....	12	2	248

<sup>1</sup> From the interior, 68; from abroad, 1.

<sup>2</sup> From the interior, 25; from abroad, 4.

### HAITI.

#### Further Relative to Smallpox Epidemic.<sup>1</sup>

Information dated January 12, 1921, shows the continued existence of smallpox in epidemic form in Haiti, practically all of the coastal ports being stated to be infected. The cases were stated to occur chiefly in refugees from Port au Prince, where the first reported case was found September 22, 1920. The total number of reported cases to January 8, 1921, was 2,262 with 64 fatalities; the estimated total was about 2,500 cases with about 70 fatalities. Fifteen localities in the northern part of the Republic and 14 in the southern part were reported infected, the largest number of cases occurring in one locality being 116. In the isolation camp at Port au Prince 1,593 cases with 51 fatalities were reported; isolated in homes, 336 cases with 8 fatalities. Smallpox was recognized as epidemic in Haiti November 23, 1920.

<sup>1</sup> Public Health Reports, Jan. 14, 1921, p. 61.

## VIRGIN ISLANDS.

## Contagious Diseases—December, 1920.

The occurrence of contagious diseases in the Virgin Islands during the month of December, 1920, has been reported as follows:

Disease.	Cases.	Remarks.	Disease.	Cases.	Remarks.
In St. Thomas and St. John:			In St. Croix:		
Chancroid.....	12	9 imported.	Dengue.....	1	Entamebic.
Gonorrhea.....	14	9 imported.	Dysentery.....	3	
Hook worm.....	3	1 imported.	Filariasis.....	6	
		Carriers.	Gonorrhea.....	6	
Mumps.....	7		Pellagra.....	2	
Syphilis.....	8	4 imported.	Syphilis.....	4	
Tuberculosis, pulmonary.....	2		Tuberculosis, pulmonary.....	2	
Tuberculosis, intestinal.....	1	St. John.	Whooping cough.....	16	

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Feb. 4, 1921.<sup>1</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Oct. 31-Nov. 6, 1920: Deaths, 1,142.
Calcutta.....	Dec. 5-11.....	32	28	
Madras.....	Dec. 12-18.....	3	1	
Philippine Islands:				
Manila.....	Dec. 5-18.....	3		
Provinces—				
Cagayan.....	Oct. 31-Nov. 6....	3	3	

## PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	Nov. 14-Dec. 18..	2	1	
Ceylon:				
Colombo.....	Dec. 5-11.....	23	20	
China:				
Manchuria.....				On Chinese Eastern Railway, Feb. 2, 1921.
Harbin.....	Feb. 2.....	2		
Manchuria station.....	do.....		203	
Tsitshihar.....	do.....			Present.
Ecuador:				
Guayaquil.....	Dec. 1-15.....	46	17	
India.....				Nov. 27-Dec. 4, 1920: Cases, 3,755; deaths, 2,703.
Bombay.....	Nov. 18-Dec. 4....	2	2	
Madras Presidency.....	Dec. 12-18.....	953	695	

## SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	Nov. 28-Dec. 4....	1		
Canada:				
New Brunswick—				Present.
Campbellton.....	Jan. 9-15.....			
Restigouche County.....	Jan. 9-15.....	1		
Nova Scotia—				
Yarmouth.....	Jan. 9-15.....	1		
Ontario—				
Hamilton.....	Jan. 16-22.....	8		
Kingston.....	Dec. 26-Jan. 8....	8		
London.....	Jan. 2-15.....	8		
North Bay.....	Jan. 9-15.....	5		
Sault Ste. Marie.....	Jan. 9-15.....	8		Mild.
Toronto.....	Jan. 9-15.....	10		
Saskatchewan—				
Regina.....	Jan. 8-15.....	3		
Saskatoon.....	Jan. 9-15.....	3		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During Week Ended Feb. 4, 1921—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	Dec. 5-11.....	2	1	
Colombia:				
Santa Marta.....	Jan. 2-8.....			Present.
Cuba:				
Habana.....	Jan. 12.....	7		One from Jatibonico, Cuba; one from Jamaica.
Nuevitas.....	Jan. 10-16.....	1		
Ecuador:				
Guayaquil.....	Dec. 1-15.....	14	1	
Egypt:				
Alexandria.....	Dec. 17-23.....	1		
Great Britain:				
Glasgow.....	Jan. 2-8.....	2	2	
London.....	Dec. 26-Jan. 1.....	1		
Haiti.....				September 22, 1920-Jan. 8, 1921: Cases, 2,262; deaths, 64.
India.....				Oct. 31-Nov. 6, 1920: Deaths, 165.
Bombay.....	Nov. 28-Dec. 4.....	1		
Calcutta.....	Dec. 5-11.....	2	2	
Madras.....	Dec. 12-18.....		1	
Italy:				
Catania.....	Dec. 20-26.....			In vicinity, 11 cases.
Do.....	Dec. 27-Jan. 2.....			In vicinity, 2 cases.
Palermo.....	Nov. 12-Dec. 10.....	213	67	
Madeira:				
Funchal.....	Dec. 26-Jan. 1.....		1	
Manchuria:				
Dairen.....	Jan. 18.....			Present.
Mesopotamia:				
Bagdad.....	Nov. 1-30.....	1		
Mexico:				
Mexico City.....	Dec. 12-18.....	2		Federal District, 4.
Tecate.....	Jan. 17.....	3		
Panama:				
Colon.....	Jan. 5-11.....	2		
Portugal:				
Lisbon.....	Dec. 5-18.....		4	
Spain:				
Barcelona.....	Dec. 23-29.....		3	
Valencia.....	Dec. 26-Jan. 1.....	2		

**TYPHUS FEVER.**

Egypt:				
Alexandria.....	Dec. 17-23.....	3		
Greece:				
Patras.....	Nov. 29-Dec. 5.....		1	Dec. 12-25, 1920: Cases, 112.
Jugoslavia:	Dec. 12-25.....	27		
Zagreb.....				
Mesopotamia:				
Bagdad.....	Nov. 1-30.....	1	1	
Mexico:				
Mexico City.....	Dec. 12-18.....	17		Federal District: Cases, 20.
Portugal:				
Oporto.....	Dec. 26-Jan. 1.....	3	1	

**Reports Received from Jan. 1 to 28, 1921.****CHOLERA.**

China:				
Canton.....	Nov. 1-30.....	7	6	Present. Do. Nov. 19-25, 1920: Deaths, 22. Aug. 1-Dec. 2, 1920: Cases, 24,017; deaths, 13,329.
Changsha.....	Nov. 29.....			
Chungking.....	do.....			
Chosen (Korea).....				Sept. 26-Oct. 9, 1920: Deaths, 2,672.
India.....				
Calcutta.....	Oct. 31-Dec. 4.....	164	147	
Rangoon.....	Nov. 28-Dec. 4.....	4	3	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from Jan. 1 to 28, 1921—Continued.**

## **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Indo-China.....				July 1-31, 1920: Cases, 136; deaths, 98.
Japan:				
Taiwan Island (Formosa)...	Nov. 11-Dec. 10...	193	88	
Java:				
West Java.....				Oct. 29-Nov. 11, 1920: Cases, 2; deaths, 1.
Bandoeng.....	Oct. 29-Nov. 11...	2	1	
Philippine Islands:				
Manila.....	Nov. 7-Dec. 4...	5		
Provinces.....				Jan. 10-Oct. 30, 1920: Cases, 80; deaths, 51.
Cagayan.....	Oct. 8-16.....	6	4	
Samar.....	Aug. 1-7.....	1	1	
Poland:				
Eastern Frontier—				
Bialystok.....	Dec. 16.....			Present.
Grodno.....	do.....			Do.
Olitz.....	do.....			Do.
Posen.....	do.....			Present in Russian prison camp.
Stralkowo.....	do.....			Present.
Strelno.....	do.....	1	1	
Warsaw.....	do.....	5		
Siam:				
Bangkok.....	Oct. 9-Nov. 13...	5		

## **PLAGUE.**

Algeria:				
Algiers.....	Nov. 1-30.....		1	
Azores:				
St. Michaels.....				Total, Oct. 1-Dec. 10, 1920: Cases, 149; deaths, 49. In vicinity of Ponta Delgada.
Brazil:				
Bahia.....	Oct. 31-Dec. 18...	4	1	
Porto Alegre.....	Nov. 14-Dec. 11...		3	
Pernambuco.....	Oct. 18-Nov. 14...	9	1	
British East Africa.....				Total for Kenya Colony, Nov. 8, 1920: Cases, 1,067.
Kisumu.....	Oct. 31-Nov. 6.....			Present.
Mombasa.....	do.....	1	1	
Nairobi.....	Oct. 31-Nov. 13...	6	2	
Uganda.....	May 1-June 30.....	111	103	Entire Protectorate.
Do.....	July 1-Nov. 5.....	259	63	Do.
Ceylon:				
Colombo.....	Nov. 7-Dec. 4.....	35	28	
Chile:				
Antofagasta.....	Nov. 24-Dec. 5.....	6	2	
China:				
Hongkong.....	Nov. 7-Dec. 11.....	5	5	
Ecuador:				
Guayaquil.....	Nov. 16-30.....	18	7	
Egypt.....				Jan. 1-Nov. 25, 1920: Cases, 456; deaths, 264.
Cities—				
Port Said.....	Oct. 22-28.....	1	1	
Suez.....	Nov. 18-24.....	6	3	
Provinces—				
Assiout.....	Nov. 24.....	3	2	
France:				
Marseille.....	June-Aug. 31.....	58	20	
Paris.....	June-Oct. 15.....	50	11	In suburbs, June-Nov. 2, 1920: Cases, 38; deaths, 19.
Great Britain:				
Dublin.....				1 case reported Dec. 15, 1920; date of occurrence, Oct. 18, 1920.
Liverpool.....				Plague-infected rat found, period Nov. 28-Dec. 11, 1920.
Greece:				
Kavala.....	Oct. 25-Nov. 7.....	2		
India.....				Oct. 24-Nov. 27, 1920: Cases 11,432; deaths, 7,688.
Madras.....	Dec. 5-11.....	1	1	
Madras Presidency.....	Nov. 14-Dec. 11...	2,331	1,508	
Rangoon.....	Oct. 31-Dec. 4.....	18	15	
Indo-China.....				July 1-31, 1920: Cases, 98; deaths, 71.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from Jan. 1 to 28, 1921—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mesopotamia:				
Bagdad.....	Oct. 1-31.....	25	7	
Mexico:				
Carbonera.....	Dec. 5-20.....	3	1	State of San Luis Potosi.
Do.....	Dec. 26-Jan. 1.....	2		
Cerritos.....	Dec. 5-20.....	7	8	Do.
Do.....	Dec. 26-Jan. 1.....	1		
Peru:				
Callao-Lima.....	Oct. 1-Nov. 30.....	6		
Russia:				
Batum.....	Nov. 24-Dec. 3.....	38		Epidemic outbreak.
Straits Settlements:				
Singapore.....	Oct. 31-Nov. 6.....	1	1	
Tunis:				
Zarzis.....	Jan. 15.....	10		In military territory, South Tunis.
Turkey:				
Constantinople.....	Nov. 21-27.....	1	2	

## **SMALLPOX.**

Austria.....				Aug. 29-Nov. 6, 1920: Cases, 62.
Bolivia:				
La Paz.....	Oct. 1-Nov. 30.....	11	3	
Bravi:				
Bahia.....	Oct. 31-Nov. 13.....	3		
Pernambuco.....	Oct. 18-Nov. 14.....	77	1	
Rio de Janeiro.....	Oct. 24-Dec. 11.....	53	23	
British East Africa:				May 1-June 30, 1920: Cases, 272.
Uganda.....				
Bulgaria:				
Sofia.....	Nov. 7-13.....	2		
Canada:				
Alberta—				
Calgary.....	Dec. 12-18.....	2		
Do.....	Jan. 2-8.....	1		
British Columbia—				
Vancouver.....	Dec. 5-11.....	1		
New Brunswick—				
Restigouche County.....	Dec. 12-18.....	1		
Ontario—				
Hamilton.....	Dec. 16-31.....	9		
Do.....	Jan. 2-15.....	18		
Montreal.....	Jan. 2-8.....	2		
Niagara Falls.....	Dec. 12-18.....	1		
North Bay.....	Dec. 12-25.....	4		
Do.....	Jan. 2-8.....	1		
Ottawa.....	Dec. 12-25.....	75	1	
Do.....	Dec. 26-Jan. 15.....	209		
Sau't Ste. Marie.....	Jan. 2-8.....	7		A few cases.
Toronto.....	Dec. 12-25.....	7		
Do.....	Dec. 23-Jan. 8.....	12		
Saskatchewan—				
Moose Jaw.....	Dec. 19-25.....	1		
Do.....	Jan. 2-8.....	1		
Regina.....	Dec. 12-25.....	11		
Do.....	Jan. 2-8.....	1		
Saskatoon.....	Dec. 16-22.....	20		
Ceylon:				
Colombo.....	Nov. 21-Dec. 4.....	8	5	
China:				
Amoy.....	Nov. 7-Dec. 4.....		5	
Chungking.....	Nov. 7-27.....			Present.
Foochow.....	.....do.....			Do.
Nanking.....	Nov. 14-Dec. 11.....			Do.
Tientsin.....	Nov. 14-Dec. 4.....	2		
Tsinanfu.....	Oct. 31-Nov. 12.....	20		Statistics of Shantung Christian Hospital.
Colombia:				
Santa Marta.....	Dec. 5-25.....			Present.
Do.....	Dec. 26-Jan. 1.....			Do.
Cuba:				
Antilla.....	Dec. 7-27.....	10		For port of Preston.
Do.....	Jan. 2-8.....	8		Do.
Cienfuegos.....	Dec. 26-Jan. 8.....			Stated to be present in virulent form in Camaguey Province.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from Jan. 1 to 28, 1921—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Cuba—Continued.				
Habana.....	Dec. 31-Jan. 5.....	5	2	From Lugareno, a small station on railway, 16 miles distant, 1 case, week ended Dec. 12, 1920. July 11-Aug. 14, 1920: Cases, 141; deaths, 29.
Nuevitas.....	Dec. 6-19.....	2	1	
Do.....	Jan. 3-9.....	1	.....	
Santiago.....	Nov. 20-Dec. 10....	26	.....	
Czechoslovakia.....	.....	.....	.....	
Danzig.....	Dec. 5-18.....	2	.....	Nov. 15-Dec. 7, 1920: Cases, 8; occurring in 4 localities.
Dominican Republic.....	Dec. 19-25.....	1	.....	
Ecuador:				
Guayaquil.....	Nov. 16-30.....	7	1	
Egypt:				
Cairo.....	Oct. 1-7.....	1	.....	
France:				
Paris.....	Nov. 1-10.....	1	1	Aug. 29-Nov. 6, 1920: Cases, 40.
Rouen.....	Nov. 21-Dec. 11....	6	2	
St. Etienne.....	Dec. 3-15.....	2	1	
Germany:				
Great Britain:				
Glasgow.....	Dec. 25.....	11	2	
Greece:				
Saloniki.....	Nov. 15-Dec. 5....	13	2	In surrounding country, in 5 localities: Cases, 21; deaths, 2.
Haiti:				
Port au Prince.....	Sept. 22-Dec. 2....	486	2	In 8 interior towns, 20 cases. In 1 locality, 18 cases. In country district, vicinity of Port au Prince, cases numerous. Sept. 26-Oct. 9, 1920. Deaths, 250.
India:				
Bombay.....	Nov. 7-13.....	1	1	July 1-21, 1920: Cases, 107; deaths, 24.
Madras.....	Nov. 14-Dec. 11....	7	4	
Rangoon.....	Nov. 21-Dec. 4....	2	.....	
Indo-China:				
Italy:				
Palermo.....	Oct. 30-Nov. 12....	93	30	
Java:				
West Java.....	.....	.....	.....	Nov. 12-13, 1920: Cases, 37; deaths, 2.
Batavia.....	Nov. 12-18.....	4	1	
Jugo-Slavia.....	July 25-Aug. 28....	128	42	Feb. 7-13, 1920. Cases, 122; deaths, 27.
Madeira:				
Funchal.....	Dec. 5-18.....	.....	2	
Manchuria:				
Dairen.....	Nov. 16-Dec. 6....	7	2	Prevalent.
Mukden.....	Dec. 12-18.....	.....	.....	
Mexico:				
Chihuahua.....	Dec. 6-26.....	11	3	Including Mexico City.
Do.....	Dec. 27-Jan. 2.....	.....	3	
Federal District.....	Nov. 14-27.....	8	.....	
Portugal:				
Lisbon.....	Nov. 28-Dec. 4....	.....	1	
Portuguese East Africa:				
Lourenco Marques.....	Oct. 24-Nov. 13....	9	.....	
Queimane.....	do.....	3	.....	
Russia:				
Reval.....	Oct. 1-31.....	3	.....	
Riga.....	Nov. 1-7.....	5	.....	
Siberia—	.....	.....	.....	
Vladivostok.....	Oct. 1-31.....	1	.....	
Spain:				
Barcelona.....	Nov. 18-Dec. 22....	.....	10	Present in orphanage and French camps.
Corunna.....	Dec. 12-18.....	.....	1	
Valencia.....	Dec. 5-25.....	3	.....	
Syria:				
Aleppo.....	Nov. 14-Dec. 4....	.....	.....	
Tunis:				
Tunis.....	Nov. 30-Dec. 28....	.....	18	
Turkey:				
Constantinople.....	Nov. 21-Dec. 11....	4	.....	
Union of South Africa:				
Johannesburg.....	Oct. 1-31.....	1	.....	
On vessels:				
S. S. Alfonso XIII.....	Dec. 27.....	1	.....	A Habana, Cuba, from ports in northern Spain.
S. S. Cadiz.....	Jan 5.....	1	.....	At Habana, Cuba, from Mediterranean ports.
S. S. Ohioan.....	Jan 4.....	.....	.....	At San Pedro, Cal.f., from New York, via Balboa Canal Zone.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from Jan. 1 to 28, 1921—Continued.**

## **TYPHUS FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Belgium:				
Ghent.....	Dec. 12-18.....	5		
Chile:				
Concepcion.....	Nov. 1-22.....		17	
Coquimbo.....	Dec. 1-7.....		1	
Valparaiso.....	Oct. 25-Nov. 27.....		13	
Czechoslovakia.....				July 11-Aug. 28, 1920: Cases, 138; deaths, 18.
Danzig.....	Dec. 20.....	1		In emigrant from Brest Litovsk, with two weeks' stay at Warsaw.
Egypt:				
Alexandria.....	Nov. 19-Dec. 16.....	9	6	
Cairo.....	Oct. 1-Dec. 28.....	21	11	
Germany.....				Sept. 12-Nov. 13, 1920: Cases, 60.
Great Britain:				
Belfast.....	Dec. 5-25.....	13		
Dublin.....	Nov. 28-Dec. 18.....	4	3	
Greece:				
Drama.....	Nov. 22-28.....	1	1	
Saloniki.....	Oct. 25-Dec. 12.....	18	4	
Serres.....	Nov. 8-14.....	1		
Hungary.....				Aug. 3-Oct. 3, 1920: Cases, 9.
Japan:				
Nagasaki.....	Nov. 15-Dec. 19.....	8		
Jugo-Slavia.....	July 25-Aug. 28.....	27	5	Feb. 7-13, 1920: Cases, 84; deaths, 2.
Manchuria:				
Harbin.....	Nov. 22-28.....	1		On Chinese Eastern Railway.
Manchuria Station.....	.....do.....	2		Do
Mexico:				
Federal District.....	Nov. 14-27.....	35		Including Mexico City.
San Luis Potosi.....	Dec. 5-31.....			Present.
Poland:				
Warsaw.....	Dec. 16.....	8		
Portugal:				
Oporto.....	Nov. 28-Dec. 4.....	1		
Russia:				
Reval.....	Sept. 1-Oct. 31.....	186		
Riga.....	Nov. 1-7.....	17		
Turkey:				
Constantinople.....	Nov. 21-Dec. 25.....	25	1	

## **YELLOW FEVER.**

Mexico:				
Orizaba.....	Dec. 5-18.....	2	1	
Papantla.....	.....do.....	8	2	
Tampico.....	Dec. 12-18.....	1	1	
Tuxpam.....	Dec. 5-18.....	9	4	
Do.....	Dec. 26-Jan. 1.....	5	1	
Vera Cruz.....	Dec. 5-26.....	8	3	
Do.....	Dec. 26-Jan. 16.....	2		
Zamora.....	Dec. 12-18.....	1	1	Also called Gutierrez. State of Vera Cruz.
Peru:				
Department—				
Lambayeque.....	Jan. 22.....			Outbreak.
On vessel:				
S. S. Savoia.....	Jan. 11-15.....	4		At Habana, Cuba, from Vera Cruz, Mexico. Vessel arrived Habana Jan. 10, 1920, with three cases sickness on board. Two cases confirmed. Two cases developed later on board; confirmed Jan. 15. Savoia left Vera Cruz Jan. 6, 1921.